Minor ailments schemes: an overview of experience up to 2015

Dr Anne McCarthy
Dr Gerald O'Nolan
Dr Jean Long

HRB Health Research Board

Published by:
Health Research Board, Dublin

Health Research Board
Grattan House
67-72 Lower Mount Street
Dublin 2
Ireland

t 353 1 234 5000
f 353 1 661 2335
e hrb@hrb.ie
w www.hrb.ie

Table of contents

Acknowledgements

The authors would like to thank the Department of Health for requesting this review. We would especially like to extend our gratitude and appreciation to the following persons for providing background and information on the development and implementation of minor ailments schemes in the following countries: **Scotland** – Mr Michael Oswald, Community Pharmacy; Mr James Smith, NHS National Services; Mr Ken Truslove, Practitioner and Counter Fraud Services, NHS Scotland; Mr Barry Melia, Public Health and Intelligence Strategic Business Unit, NHS National Services, Scotland. **England** – Ms Charlotte Goodson, Adviser, Primary Care Commissioning; Ms Linda Bracewell, Baxenden Pharmacy Chair; Dr Lisa Rogan, Head of Medicines Commissioning; Ms Rosie Taylor, Pharmaceutical Services Negotiating Committee, and Mr John Vaughan, East Lancashire Clinical Commission Group. **Wales** – Mr Andrew Evans, Welsh Government; Ms Anne Hinchliffe, Public Health Wales; Ms Chrissie Collier, All Wales Therapeutics and Toxicology Centre; Mr Ian Jones, Health and Social Services, Welsh Government; Ms Deirdre Leigh, Health Statistics and Analysis Unit, Welsh Government. **Northern Ireland** – Professor Carmel Hughes, School of Pharmacy, Queen's University Belfast; Ms Christine Kelly and Dr Joe Brogan, Health and Social Card Board, Northern Ireland. **Canada** – Ms Kelsey Skromeda, Blueprint for Pharmacy.

We would also like to acknowledge the work of Louise Farragher and Brigid Pike of the Health Research Board, who assisted in the literature search, the initial screening processes and early meetings on determining the approach to be adopted by the review.

We are particularly grateful to our peer reviewers: Mr Barry Melia, Scotland and Ms Anne Hinchliffe, Wales.

List of tables

List of figures

List of forms

Abbreviations

APA	additional prescribing authorisation
A&E	accident and emergency
BSC	Business Services Organisation
CCG	Clinical Commissioning Group
CFAF	Community Pharmacy Assurance Framework
CHI	Community Health Index
CPDP	Continuing Professional Development for Pharmacists
CPPE	Centre for Pharmacy Post Graduate Education
CPW	Community Pharmacy Wales
DoH	Department of Health
DPEBB	Drug Plan and Extended Benefits Branch
DSOM	Direct supply of Medicines
eCAS	electronic Common Ailments Scheme
eMAS	electronic Minor Ailments Scheme database
ePMS	ePharmacy Message Store
EHR	electronic health record
ETP	electronic transfer of prescriptions
GPhC	General Pharmaceutical Council
HSCIC	Health & Social Care Information Centre
2012 Act or the Act	Health and Social Care Act 2012
HRB	Health Research Board
HSCB	Health and Social Care Board
ICT	information and communications technology
MAS	Minor Ailments Scheme
NHS	National Health Service
NHSSSP	NHS Shared Service Partnership
NI	Northern Ireland
NMS	New Medicine Service
nCPC	new Community Pharmacy Contract
NSS	National Services Scotland
NWIS	NHS Wales Informatics Service
PAS	Pharmacists' Association of Saskatchewan
PRS	Patient Registration System
PCS	Pharmacy Care Service
PCT	Primary Care Trust
PhwSI	Pharmacists with a Special Interest
PMR	patient medication records
PNA	Pharmaceutical Needs Assessment
RPS	Royal Pharmaceutical Society
PRS	Patient Registration System
PSNC	Pharmaceutical Services Negotiating Committee
WCPPE	Welsh Centre for Pharmacy Professional Education
WDS	Welsh Demographic Service

Executive summary

Purpose of review

In 2008, a sub-committee of the Pharmaceutical Society of Ireland (PSI) Council carried out a review of pharmacy services in Ireland in comparison with best practice in other countries. An interim report of the PSI findings, presented to the Minister for Health in April 2008, outlined services that could be provided by pharmacists in Ireland and made recommendations on a wide range of issues, including prescribing, medicines review, health screening and education, training of pharmacists and hospital pharmacy. Since then, pharmacists have broadened their range of services. The Department of Health (DoH) wishes to expand the primary care sector and to determine whether or not new pharmacy services, such as the delivery of a minor ailments scheme (MAS) in community pharmacy, can or should be rolled out in the Irish healthcare setting.

The Health Research Board (HRB) was asked to describe how MASs operated in other jurisdictions, including how the schemes are structured, regulated and resourced. The DoH also wished to identify revisions made to the original scheme, and why such revisions were made. In addition, the HRB was tasked with examining studies that determined costs and benefits of the scheme for four key stakeholders: patients, pharmacists, general practitioners (GPs) and the rest of the health system. Finally, the HRB was asked to identify enablers of or barriers to participating in the scheme for stakeholders.

Methods

The databases Google, PubMed, Medline, Embase, CINAHL, and Health Management Information Consortium were searched using the keywords 'minor ailments scheme', with and without names of the following jurisdictions: United Kingdom (England, Northern Ireland, Scotland, and Wales) Australia, Canada, and New Zealand. Two provinces in Canada and the four jurisdictions of the United Kingdom have publicly funded minor aliments schemes. The provision of care for minor ailments was observed in a number of the remaining countries. However, these services were not publicly funded and were thus excluded from the review. Retrieved articles were examined and purposeful searching for additional articles, identified as of interest, was undertaken. Examination of all documentation was used to identify experts and relevant national-level data information systems. Experts were followed up to provide clarifications on literature via e-mail and telephone conversations. Identified information databases, where available, were examined. The study's inclusion and exclusion criteria were not determined a priori, due to insufficient information on the subject before undertaking the review. It was determined following examination of the literature, and was based on whether schemes were publicly funded or not.

Background to minor ailments schemes (MASs)

Global shifts in the role of pharmacists and other healthcare experts have introduced provisions of care to allow professionals to diagnose and, where necessary, treat specific diseases. These changes expanded the historical roles of many professionals beyond the actions of care and advice – and for pharmacists, dispensing. A suite of pharmacy-based services, including interventions such as chronic medication services or stoma care services, has evolved to enable pharmacists to deliver this changing model of care. However, changes in service delivery requirements necessitate changes in professional competency requirements. Service roll-out, in a planned manner, allows pharmacists to incrementally build on previous competency attainment as each successive service is introduced. Pharmacy service delivery is governed through a combination of rule-making, judgement and administrative processes. Country variations exist in the suite of pharmacy services provided, the

chronology of their roll-out in different jurisdictions, and the pre-requisite governance skills. Therefore, understanding the context of the existing health service is important when identifying the requirements for introducing a MAS in a specific jurisdiction. In addition, the predetermined objective of the scheme is a key issue when assessing the success or failure of a MAS. The stated national and local objectives of MASs vary; local objectives vary within jurisdictions where service delivery is in response to local healthcare needs. Nevertheless, broadly speaking, objectives can be summarised as reducing the clinical and economic burden of minor ailments consultation on other parts of the health service, with the corresponding objective of empowering service users, I,e. the patient, in self-care.

Jurisdiction-specific baskets of pharmacy-based services vary with regard to composition and the approach to delivery. The services include post-hospital care delivery of topical and oral treatments and supports, such as medication monitoring; interventions relating to behavioural practices, such as emergency oral contraception provision, alcohol and smoking management advice, and care in non-acute healthcare settings. For practitioners holding national pharmacy contracts, service delivery is compulsory, whereas service provision based on local needs assessment by commissioning health authorities is optional.

Initially, in the UK, health authorities provided training for pharmacy-based services for both clinical and computing competencies. But, over time, these programmes have evolved into distance learning modules provided by universities or professional pharmacist bodies. Each module focuses on the clinical competency requirements for the national agreed list of minor ailments, communication, and computing and data protection issues.

Differences in geographical coverage and the list of eligible conditions under the MAS arise from the disparate national-level lists and the schemes' modes of delivery. The universal coverage observed with compulsory delivery contracts contrasts with fragmented coverage in areas that use a needs assessment approach. This contrast is mirrored in data reporting practices. Methods and processes of monitoring the MAS also differ. Methodological differences mainly reflect the degree to which service delivery and data collection have been automated, whereas process differences reflect the extent to which governance, clinical, financial and administrative practices are scrutinised.

The remit of this review is to describe the MAS with regard to the areas of scope, governance, delivery resources, costs, and barriers and enablers. However, in reviewing the evidence we observed differences in these factors are as much – or even more – a reflection of national health system design and delivery as of the MAS itself.

Findings

Evidence addressing the questions of the review are summarised in the sections below. Each section opens by presenting the areas addressed in each of the questions posed followed by the key findings.

Question 1: MAS structure

Question 1 addressed the area of MAS structure, specifically with regard to scope, training and protocols. From the evidence, we defined scope as the list of conditions in, and population eligible for, the scheme. We observed national variation in both the range of conditions and population characteristics eligible for inclusion in the scheme. However, all schemes included some combination of illnesses of the respiratory and central nervous system, the sensory organs (skin, eyes and ears), specific infections (including bacterial, viral and fungal) and

disorders of the urinary tract in their national MAS list. The number of conditions managed by pharmacists under the MAS varied in each jurisdiction, from 15 to 35, and included conditions such as indigestion, constipation, diarrhoea, haemorrhoids (piles), teething, nappy rash, colic, hay fever, head lice, chicken pox, threadworms, sore throat, athlete's foot, eye infections (such as conjunctivitis), mouth ulcers, cold sores, acne, dry skin, dermatitis, verruca, back pain and thrush (vaginal and oral). Eligibility for the service was determined by factors such as age and income thresholds. Service provision was universal to those who met the criteria; alternatively, service provision was based on a locally determined needs assessment. Professional training to deliver the scheme was initially provided by regional health authorities and has evolved into distance learning modules delivered by postgraduate education centres. MAS-specific training is additional to the fundamental skillset that pharmacists and associated staff attain in existing undergraduate and vocational training in assessment, diagnosis and treatment prior to registration. The modules address the clinical and wider governance competencies requirement of the schemes as specified by the national MAS list, the agreed drug formulary and the relevant professional regulatory requirements. Training modules are customised to take account of national MAS requirements and the nationally relevant information and communication technology (ICT) infrastructure of the wider health system.

In some schemes services are offered exclusively by community pharmacists; in other schemes community pharmacy support staff are also involved and could be considered stakeholders. Furthermore, in some pharmacies the pharmacist owns the business and as such is also the contractor representing two different interests, the contractor and the employee pharmacist.

Question 2: MAS governance structures

Question 2 addressed MAS governance structures. Governance was understood as the task of rule-making, judgement and administration. The following regulatory, surveillance and monitoring instruments were identified: national and local contracts, service level agreements, assurance frameworks, structured data collection forms, ICT database collection systems, on-site monitoring visits and data analysis processes. The governance standard-setting areas addressed in the contracts and agreements included physical structures, pharmacy capacity, pharmacists' competencies, and adherence to clinical, financial and record-keeping standards. A key point identified in the review is how governance is increasingly being managed through the automation of procedural steps in ICT infrastructure databases and related components. Databases specifically designed for MAS-related data were identified; the eMAS (in Scotland), PharmOutcomes (in England), Choose Pharmacy (in Wales) and the Pharmaceutical Information Program (in Alberta and Saskatchewan, Canada). These allowed a structured and scheme-specific approach to collecting and processing data, increasing standards of governance and compliance. The MAS databases, especially those of Scotland and Wales, were designed to take account of the wider ICT infrastructure within which they are nested. These reflect a wider eHealth strategy for pharmaceutical care in developing pharmacy-based services and aim to allow for future integration and/or adaptation. The MASs were monitored through on-site visits and off-site data analysis; however, we found data on outcomes of these visits were not publicly available for reporting purposes. One important governance-related issue we observed concerned the issue of database funding. MAS databases are publicly funded in Canada, Scotland and Wales, whereas the most commonly used data system in England, PharmOutcomes, is privately funded. The funding source for ICT database collection systems has an impact on data protection; commercial sensitivity; data transfer, and longer-term revisions of the system. It should be noted that although people refer to a community pharmacy contract, in reality, often there is no formal contract; rather, there is a requirement to comply with various directives and regulations around the provision of services to the pharmacy population in its wider sense, and in some jurisdictions this may not be merely the local catchment area.

Question 3: Resource requirements for MAS delivery

Question 3 addressed the area of resource requirements for MAS delivery. Reflecting the findings of questions 1, 2 and 5, a brief schematic illustration of identified resource requirements is provided in the body of the review and encapsulates requirements under the broad headings of information and communications technology (database design and wider health system integration), training (for each area of governance) and awareness campaigns. The barriers to calculating real costs include lack of reporting of actual costs, the reporting of nominal costs (cost of the product or service at the time of purchase) rather than real costs (cost of the product or service adjusted for inflationary changes) when calculating software upgrading costs, and the reporting of nominal costs rather than the real costs of providing pharmacist guidance, training and education specific to MAS.

Question 4: Revisions to MASs

Question 4 addressed assessment of revisions to the scheme. In practice, revisions were not common features of scheme delivery. Scotland rolled out a national process of MAS delivery by first extensively piloting the MAS over a five-year period, especially the computerised modules of scheme delivery (the electronic transfer of prescriptions and the direct supply of medicines). The scheme appears to have experienced little change since its national introduction in 2006. England, by customising and prioritising MAS delivery in response to local health need requirements, was in theory eligible to change the MAS scope with each new local MAS pharmacy contract. Changes to the NHS architecture following the Health and Social Care Act 2012 further widened the local assessment process to include social care needs, and introduced a wider basket of services for prioritising and funding. However, a dearth of data prohibited empirical time series evaluation of actual changes. The situation in Wales is a hybrid of the situation in Scotland and England. In the first instance, Wales exhibited a fragmented MAS service delivery, mirroring conditions in England. However, the 2011 manifesto for government promised to expand community pharmacy services and to run a pilot MAS scheme from early 2013 to mid-2015. Development of the pilot scheme in Wales was informed by the previous Scottish and Welsh experiences of delivering pharmacy-based projects and by the Scottish expertise. The Welsh MAS scheme is expected to roll out at a national level during 2016. Only Northern Ireland appeared to experience revisions to the MAS per se, and not simply to its mode of delivery. Starting in 2005, with an initial three conditions (coughs, colds and hay fever), the scheme was available to all persons exempt from paying prescription charges. However, the initial costing model, drug repayment fees, based on data available from Scotland, and in addition, amendments to the scheme sought by the Northern Ireland Department of Health, posed difficulties for pharmacists. The service was withdrawn in 2008, but negotiations regarding payment, the list of conditions to be included, and eligibility to participate in the scheme resulted in the re-introduction of the scheme in November 2010. A universal service for a wider range of conditions was made available for all those over the age of three months.

Question 5: Costs and benefits of a MAS

Question 5 explores the costs and benefits of a MAS, based on existing research and information. Policy changes need to be evaluated, in order to determine if they will be of economic value. Research UK published a systematic review in 2014, including 36 evaluations, and concluded that no MAS study completed a full economic evaluation detailing costs and benefits. With a paucity of evidence on economic justification, we can describe the costs that may be incurred and the potential benefits that may accrue to stakeholders. The financial costs identified in the literature include the pharmacist's establishment or start up costs and their fee or per capita allocation fee for each registered patient, together with the costs of medications dispensed. Others include the cost of training pharmacists, the cost of developing and updating a formulary and protocol, as well as the design and running costs of a computer-based information collection system. The literature also indicates that the costs of state administrators supporting pharmacists and the cost of negotiating nationally with pharmacists and GPs need to be estimated. Tangible costs may vary, depending on the number of medical conditions the pharmacist is permitted to treat and the type of medication that can be dispensed through the

scheme. With the transfer of certain work from GPs to pharmacists, some of the literature reviewed expected to see a change in the GP's workload; however, subsequent experience reported in the literature suggests that this does not occur. Studies indicate that the overall number of consultations by GPs does not change, but fewer minor ailment consultations take place. The change in enablers of and barriers to MAS GP consultations is difficult to be definitive about because there is little agreement on the optimal number of GP consultations that take place annually. The literature reviewed indicated that in some studies MAS attendances are reduced in GP practices, and therefore increased GPs' capacity to see patients with more serious conditions, and provide quality care. There is no definitive evidence of reduced attendances at emergency departments. The literature indicates that the MAS may promote a more effective use of pharmacists' knowledge, skills and training, and should increase patient access and choice in primary care, but there is no tangible proof of these outcomes. In addition, the MAS (according to the literature) would promote self-care by empowering patients to be more confident in their choices. In the literature, the expected patient benefits are convenience, access and timeliness, as well as reduced costs, but once again these are not proven outcomes. The expected benefit to pharmacists would be greater volumes of business and an enhanced professional profile. Researchers have found that GPs and ED doctors demonstrate some variation on what they consider to be 'minor'. This may inhibit GPs' commitment to MAS although it would be in doctors' interest to divert minor cases away from the GP practice if there was no perceived financial penalty for doing so. In addition, GPs report that families who present regularly with minor complaints maintain an ongoing relationship with the doctor and the practice. However, it should be noted that many pharmacists deal with minor ailments all the time and have always done so. The difference between this practice and an official scheme is that an official scheme is run by a government body; in addition, there is a payment for the service provided, and its execution has to be codified.

Question 6: Enablers of and barriers to MAS

The final area of interest addressed in the review related to the enablers of and barriers to the MAS as experienced by the patient, the pharmacist, the GP and the rest of the health system. A range of factors in the establishment, delivery, uptake and monitoring the scheme was found. Whether these factors were enablers or barriers – and to which stakeholder this perception may apply – varied. Nevertheless, the following barriers or enablers were identified: awareness of the scheme with regard to conditions, treatments and accessibility; provider preference; professional competencies across the range of governance requirements; development of the information and communication infrastructure, and administration and policy developments. A specific example of awareness of the scheme with regard to conditions, treatments and accessibility is the appropriate referral of patients to the pharmacist by general practice staff who know which ailments are eligible for treatment under the MAS – and also know the pharmacy opening times – is an enabler, and the corollary of this is a barrier. A specific example of provider preference is favouring the GP over the pharmacist; this is a barrier to using the scheme that could be overturned by GP support for and confidence in pharmacy services. Therefore, what is a barrier in one jurisdiction may be an enabler in another and vice versa. An important enabler is a well-designed data capture system serves to organise governance requirements in a structured step-by-step manner, both guiding and facilitating work processes and data recording for the pharmacist.

Conclusions

In our initial pre-screening assessment of the evidence we observed that pharmacists in all countries reviewed were required to provide referral or self-care advice. In addition, Australia provides a MAS that is not publicly funded and New Zealand has an extensive self-care programme. The four jurisdictions in the UK and the two provinces in Canada have publicly funded minor ailments schemes. Following examination of and reporting on publicly funded schemes, we identified both universally delivered and eligibility-assessed MASs. Although different numbers of minor ailments were allowed to be treated in the different jurisdictions reviewed,

commonality in ailments treated was observed across all jurisdictions, and the ailments treated represented a subset of a wider package of conditions in some countries. Competencies and governance requirements to deliver the scheme have been established, and pooled assessment of the reported training modules, contracts, assessment frameworks and related documentation would provide a good foundation when developing an appropriate national system. We observed that detailed planning, extensive piloting and automation of governance structures are essential steps to ensure quality patient care and effective monitoring. Costs were dependent on current health system structures, professional attainment standards and the breadth of service delivery, and can be determined through a national needs assessment process. While there are potential benefits to pharmacies and patients, the benefits to GPs who are independent contractors are not clear. It is essential that GPs are involved, and provide a good level of cooperation with the scheme from the outset.

Introduction

Background to and purpose of the review

In 2008, a sub-committee of the Pharmaceutical Society of Ireland (PSI) Council carried out a review of pharmacy services in Ireland and compared these with best practice in other countries. An interim report of PSI Council findings, presented to the Minister for Health in April 2008, outlined services that could be provided by pharmacists in Ireland, and made recommendations on a wide range of issues including prescribing, medicines review, health screening and education, training of pharmacists, and hospital pharmacy. Since 2008, pharmacists have broadened their range of services. The Department of Health (DoH) wishes to expand the primary care sector and also wishes to determine whether or not new pharmacy services, such as a minor ailments scheme (MAS), can or should be rolled out in the Irish healthcare setting.

The Health Research Board (HRB) was asked to describe how MASs operate in other jurisdictions, including how the schemes are structured, regulated and resourced. The DoH also wished to identify revisions made to the original scheme, and why such revisions were made. The HRB was tasked with determining costs and benefits of the scheme for four key stakeholders, which were identified as patients, pharmacists, general practitioners (GPs) and the rest of the health system. Finally, the HRB was asked to identify enablers of or barriers to participating in the scheme for stakeholders.

Research questions

The DoH asked the HRB to undertake a brief review on the subject of MASs, taking into account the following questions:

1. How are MASs structured, with particular reference to scope, training, protocols and surveillance?
2. What governance structures are used to regulate and monitor these schemes?
3. What resources (training, funding, manpower time) are used to deliver the schemes?
4. Were there revisions to the schemes and why?
5. What are the costs and benefits of minor ailments schemes, both tangible and intangible, to the patient, the pharmacist, the general practitioner and the rest of the health system?
6. What are the enablers of and barriers to minor ailments schemes for the patient, the pharmacist, the general practitioner and the rest of the health system?

Over the course of the work, aspects of the first two questions were revised to include 'surveillance' under the umbrella of 'governance structures' addressed in Question 2. The DoH was informed of this change and agreed with the approach. The questions are answered using the following structure:

1. How are MASs structured, with particular reference to scope, training, and protocols?
2. What governance structures are used to regulate, to undertake surveillance and to monitor these schemes?

Methods

The databases Google, PubMed Medline, Embase, CINAHL, and Health Management Information Consortium were searched using the keywords 'minor ailments scheme', with and without names of the following jurisdictions: United Kingdom, England, Northern Ireland, Scotland, Wales, Australia, Canada, and New Zealand.

Questions 1, 2, 3, 4 and 6

Retrieved articles were examined and purposeful searching for additional articles, identified as of interest, were undertaken. Examination of all documentation was used to identify experts, relevant national-level data information systems, and websites of relevant government bodies and departments, professional bodies, and universities. Experts were followed up for consultation through e-mail and telephone conversations; identified information systems and websites were inspected. The full methods are detailed in Annex 1.

Examination of retrieved references and consultation with persons working in the area of minor ailments (in various countries) identified MASs – recognised by this review as the provision of advice and where necessary treatments coupled with government-funded repayment – in the four jurisdictions of the United Kingdom and in the Canadian province of Saskatchewan. Advice and programmes on minor ailments are delivered in other countries, but not under the eligibility parameters identified in this review. Such advice or programmes represent nationally agreed core pharmacy-based services (in the national pharmacy contract) or programmes where payment reimbursement is not government funded.

The inclusion/exclusion criteria were therefore:

- Included: Scotland, England, Wales, Northern Ireland, and the Canadian province of Saskatchewan
- Excluded: Australia (all states), New Zealand, all provinces of Canada apart from Saskatchewan and Alberta.

Earlier discussion with the DoH had ruled out consideration of the United States of America.

Question 5

In January 2015 a broad scoping search was conducted on the following bibliographic databases: Medline, Embase, CINAHL, and HMIC, with no date or language restrictions. There are no Medical Subject Heading (MeSH) or Emtree terms to specifically describe MASs. MeSH does have a broader term 'Community Pharmacy Services', but this was considered too broad for our purposes; therefore, we focused on conducting a keyword search of the databases using a combination of the keywords 'minor ailments' and 'scheme'. This search resulted in 87 references from the four databases. Following deduplication of the results, this was reduced to 56 references. In addition, systematic, targeted and informed searches yielded a total of 944 documents relating to the topic. Of these, approximately 20 papers were found to be of relevance to Question 5. This involved searching databases (Google and PubMed), websites of relevant professional and government bodies and direct contact with individual experts. Full details of the search results and strategy can be found in Annex 1.

Background to minor ailments schemes (MASs)

The changing roles of health professionals

Healthcare – the diagnosis, treatment and prevention of disease, illness and other impairments in human beings – is delivered by practitioners across a range of health professions, including pharmacy, dentistry, midwifery, medicine and nursing. Healthcare refers to the work done in providing primary and secondary care, as well as in public and community health care settings.[1] The provision of advice on self-care and minor ailments has long been an essential component of national pharmacy contracts. A MAS, which additionally includes diagnosis – and, where necessary, treatment – for persons presenting with a minor ailment is one of a range of pharmacy-based services which, in recent decades, has been identified as a core (essential) or desirable component of pharmacy care in the community. The scope of a national MAS represents the range of minor ailment conditions identified as eligible for treatment and the population profile of those entitled to avail of the scheme.

The shift in pharmacy responsibilities from mainly dispensing to providing services such as medicines management, repeat prescribing and/or the provision of emergency contraception is a relatively recent phenomenon. It mirrors a wider shift across the healthcare profession, with nurses and other health workers extending their roles to permit over half of these professionals to supply medicines in specific areas of care. The shift in practice requires a transformation in professional competency requirements for 'care to be reshaped around the patient to improve quality and make better use of the skills and dedication of the staff'.[2]

As primary healthcare professionals in the healthcare sector, pharmacists have been identified as one of the many professionals to play a role in delivering these changing models of care. The professional competencies required to deliver care under the new model include knowledge of clinical pathways for eligible conditions; they also include tasks and processes to achieve effective governance.

For example, change in the focus of pharmacists' work from predominantly dispensing to include pharmacy-based service provision was supported by the launch of a national framework for Pharmacists with a Special Interest (PhwSI) in September 2006.[3] The Department of Health (England) and NHS Primary Care Contracting created the framework which identified development requirements to enable pharmacists to supplement their core skills. These are listed in Table 1.

Table 1 Competencies for pharmacists with a special interest, England

Competency clusters	Practitioner level	Pharmacist with a Special Interest level (in addition to all competencies at practitioner level)
Expert professional practice	All	All
Building working relationships	All	All
Leadership	All	Majority
Management	All	Majority
Education, training and development	All	Optional
Research and evaluation	All	Optional

Aligned with clinical competencies in the PhwSI framework are required governance competencies. Governance consists of the tasks of rule-making, judgement and administration, the application and evaluation of which requires monitoring. National differences in these and other MAS features are detailed in subsequent sections of this review.

Service provision

This section presents a description of the national variation in the basket of pharmacy-based service provision, health system infrastructure, governance practices and related competencies, and communication networks.

National variation in the basket of pharmacy-based service provision

In the jurisdictions covered in this review, national variation in the basket of pharmacy-based services and in the contracted delivery obligations has been observed. The list of pharmacy-based services which have been agreed in Scotland, England, Wales and Northern Ireland, and their contractual stance – whether core (essential), enhanced or negotiated services – are detailed in Table 2. Pharmacists with a national health contract are obliged to deliver core services. Pharmacists are not obliged to deliver enhanced (advanced) and/or negotiated (commissioned) services, but they many choose to do so once they have undertaken the appropriate training and when assessment by the local health authority identifies the need for such a service. It is clear from Table 2 that the package of core services delivered in Scotland incorporates a wider diagnostic and treatment factor than the obligatory services of England and Wales, which have a greater focus on advice. It should be noted that variations in the Community Pharmacy contractual framework advanced and enhanced services for England and Wales do occur (hence it being a contractual framework rather than a contract). The essential services are the same for England and Wales. Advanced services differ, as listed in the Drug Tariff. Enhanced services differ, as listed in the Regulations. However, as it is the status of the MAS, i.e. essential, advanced, or enhanced service in each country that is the key issue – regardless of which other services are provided/commissioned – we have presented a representative overview of the available services that may exhibit temporal or geographical variation.

Many of the services are also dated, indicating the phased approach to the introduction of pharmacy-based services and further indicating how the broader milieu of pharmacy-based service provision can impact on baseline MAS training requirements.

Table 2 Suite of pharmacy-based services – four jurisdictions of the United Kingdom

Scotland	England	Wales	Northern Ireland
Country (year service introduced, or earliest year identified when service was being provided (if *))			
Core services	Essential services[2]	In general as per England	Not clear/Not specified
Minor ailments scheme (2005–6)[4]	Dispensing		Advice to nursing and residential homes (2012*)
Acute medication service (2005–6)[5]	Repeat dispensing		Medicines adherence support service (Pilot)[6]
Chronic medication service (1999)[6]	Disposal of unwanted medicines		Medicine use review (MUR) service (2013)
• Cardiovascular resources	Promotion of healthy lifestyles (public health)		**Minor Ailments Service (2009*)**
• Chronic pain resources	Signposting		Palliative care (available in 40 pharmacies 2013*)
• Diabetes resources	Support for self-care		Repeat dispensing scheme (2005–2008)[7]
Public health services (2006–7)[7]			Rotas
• Emergency hormonal contraception – sexual health services (2006–7)			Service specifications
			• Dispensing specification
			• Repeat dispensing specification
• Smoking cessation (2008–9)			• Safe collection and disposal of unwanted medicines and sharps specification
• Alcohol			
• Self-care			• Signposting specification
Stoma service[8]			• Support for self-care specification
Unscheduled care[9]			Sexual health (pilot) (2013)
Gluten-free food service (2013–14)[10]			Stop smoking (2001)
			Oxygen services
Enhanced services	Advanced services		
Alcohol brief interventions	Medicines use review (MUR)[3]		
COPD	Prescription Intervention (PI) Service[3]		
Medicine reconciliation	Stoma Appliance Customisation Service (2010)		
	Appliance Use Review Service (2010)		
	New Medicine Service (2011)[4]		
Local negotiated services	Locally commissioned services		
Advice to residential homes (1997)	Anticoagulant monitoring service		
Care at home	Care home service		
Clacks rota service	Disease-specific medicines management		
Direct-acting antivirals in hepatitis C	Gluten-free food supply service		
Injection equipment provision	Independent prescribing service		
Dispensing of methadone for drug users/ opiate replacement therapy (1997)	Home delivery service		
	Language access service		
Domiciliary oxygen service (1997)	Medication review service		
Needle exchange services (LS)	**Minor Ailments Scheme**		
Disposal of unwanted medicines (1997)	Needle and syringe exchange service		

Scotland	England	Wales	Northern Ireland
Naloxone service	On demand specialist drugs service		
Palliative care	Out-of-hours services		
	Patient Group Direction Service[5]		
	Prescriber support service		
	Schools Service		
	Screening Service		
	Stop Smoking Service		
	Supervised Administration Service		
	Supplementary Prescribing Service		

1 The Chronic Medication Service (CMS) merges two previous policy initiatives: serial dispensing and Pharmaceutical Care Model schemes (PCMS) and fits in with the Scottish Government's (SG) Healthcare Quality Strategy. The Pharmaceutical Care Model commenced in 1999. LS=Local Service

2 Services are provided under a clinical governance framework that includes clinical audit and information governance requirements.

3 These groups are: patients taking a high-risk medicine (on a nationally agreed list); patients with respiratory disease; patients recently discharged from hospital who have had changes made to their medicines while in hospital.

4 Four conditions are included in the service: chronic obstructive pulmonary disease (COPD)/asthma, type 2 diabetes, hypertension and antiplatelet/anticoagulant therapy.

5 The underlying purpose of which is for the pharmacist to supply or administer prescription-only medicines to patients under patient group directions.

6 Pilot assessments and monitoring phases concluded on 30 April and 30 June 2015.

7 Pathfinder established 2005. Roll-out 2006. Available from all pharmacies 2008.

Health system infrastructure

The identified MAS information and communications infrastructure ranged from paper-based to almost totally computerised data collection systems. Key characteristics and major points of difference include: Northern Ireland's paper-based data collection forms, which are scanned or photocopied and returned to the central administrative centre; Scotland's optical form scanning and Internet data transmission, and Wales's data collection activating national data registration files to pre-populated, pharmacy-based, web-connected data management systems, thus almost completely automating its data collection processes. Each data collection model incurs differences in capital expenditure and maintenance costs, along with governance practices that can range from on-site visits to off-site data analysis.

Automated MAS governance procedures can be supported by inbuilt checklists, algorithms and protocols (clinical, drug formulary) and can be linked to national patient and pharmacist registration databases. Such systems allow rapid, timely and automated analysis of the scope, frequency and nature of services used. Additionally, where protocols are contained within the technology infrastructure, this allows rapid and uniform system-wide updates as revisions occur or policy changes are implemented.

Governance practices and related competencies

Governance competencies additional to clinical competencies included issues of data protection and confidentiality, computing proficiencies and financial judgement. Initially, pharmacy-based service training was provided by the local health authority, and included clinical competencies and wider governance requirements. Over time, a move to postgraduate education distance learning modules has occurred. These training modules address the training requirements of each nation's pharmacy-based services, with customised governance procedures that take account of the national ICT infrastructure. More recently, aspects of these programmes are becoming embedded in the pharmacist undergraduate curriculum. Certification of competencies is also changing. The local authority accreditation process is being replaced by the practitioner's self-declaration of competencies. In this latter case pharmacists assess their own competencies and skills against structured checklists, and furnish health commissioners with the requisite certificates of competency.

Communication networks

Information dissemination and understanding was identified as an important component of MAS provision. The groups and the information direction flow identified as important for successful service delivery is summarised in Figure 1. The main features of note are the need for a clear understanding of the MAS scope and boundaries, and the need for good communication between the various health professionals, and between health professionals and the general public.

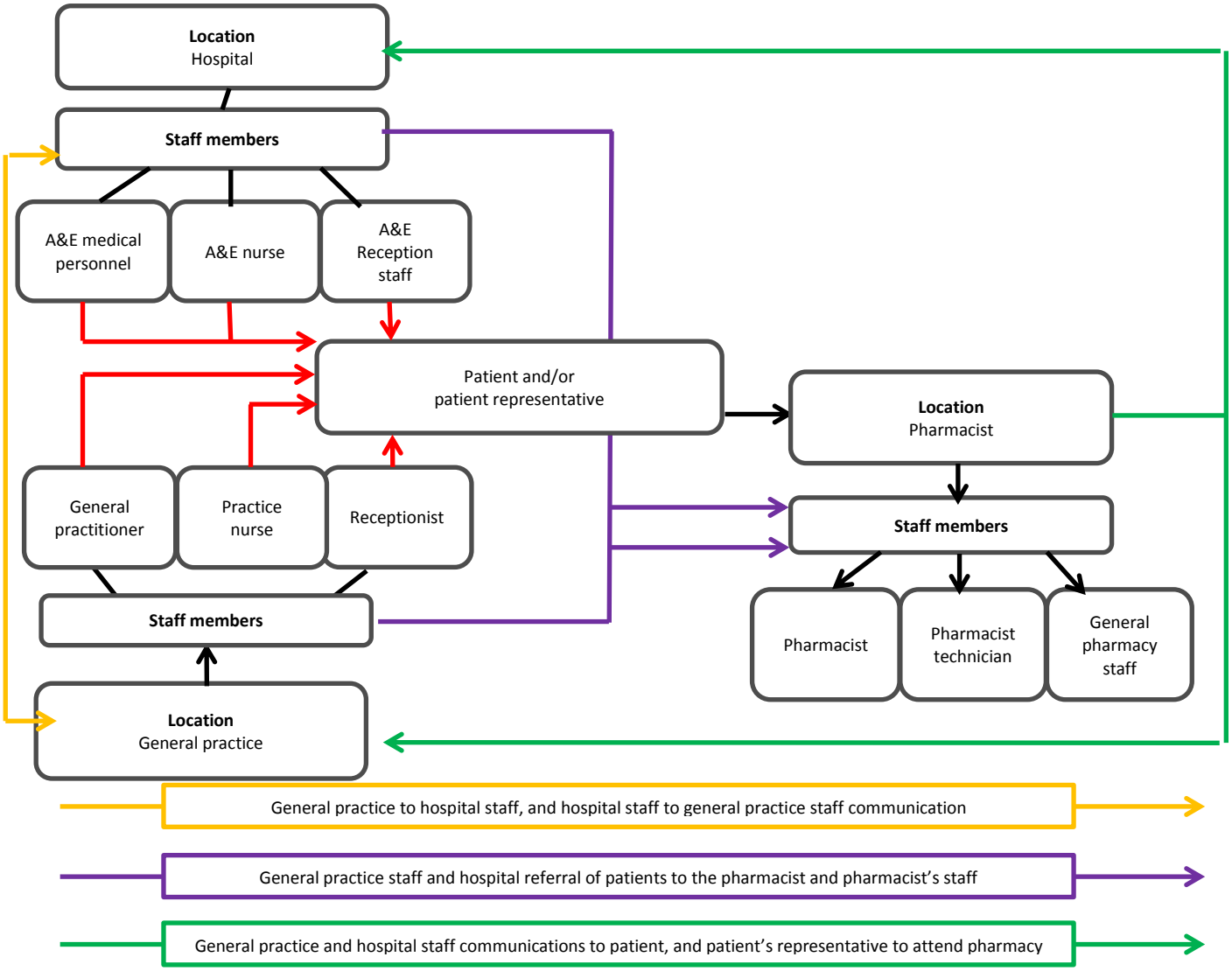


Figure 1 Overall communications network and individuals' pathway requirements to ensure accurate understanding of eligibility in referral and treatment options

In summary, service contracting was observed to impact on the scope of MASs through the dual process of service uptake and delivery. Within each country, factors such as structure of the health service, the national package of negotiated services, the nature of service delivery whether universal or not, the level of devolved decision-making to each health authority, the degree of continuity in healthcare delivery, as well as service provider and user uptake all interact. The interactions between the aforementioned factors in each jurisdiction characterise the nature, scope and quality of the service provided. For example, in Scotland, pharmacy-based services identified as core obligatory contractual requirements represent a guaranteed source of income for pharmacists, thus mitigating the investment in training and structural improvement required to deliver the service. In England, pharmacy-based services are optional and/or locally commissioned, and therefore pharmacists may be less willing to invest the required time and money for training and development. Here, in

England, health commissioners determine service provision in response to needs and other local requirements, contracting delivery for a fixed period. With no guarantee of service continuity, the uptake of service provision may be patchy.

Desired outcomes

This review addresses the structure, governance, resource requirements, reasons for MAS revisions, costs and benefits as well as enablers and barriers to a MAS. We have reported on findings in these areas. However, in the course of this review we identified a range of outcomes desired by policy-makers and planners when introducing a MAS. These outcomes included reducing the economic burden of minor ailments consultation on the health service,[11] reducing GP time spent on dealing with minor ailments,[12] reducing treatment of minor ailments in Accident and Emergency (A&E) departments,[13] improving access to medicines, and providing greater choice for patients.[14] At a broader level, it was observed that the change in pharmacy service delivery effected a broader transformation in the model of healthcare delivery. The extent to which these outcomes have been achieved has yet to be established. However, many of the changes required to achieve these outcomes are reported in the section below.

Health sector and professional boundaries, pharmacy service and competencies overlap

The desired outcome identified in *Pharmacy in the Future – Implementing the NHS Plan: a programme for pharmacy in the National Health Service* 2000[15] includes the development of competency requirements arising from shifts in professional practices, and mirrors upskilling requirements for a range of health professionals.[16-19] Figure 2 illustrates how the delivery and treatment of care can result in service provision overlap. Change to service delivery requires management if the effects of professional tensions and public confusion are to be mitigated. Figure 2 illustrates how public health responsibilities, pharmacies and GPs' contractual arrangements and secondary care (hospital and A&E) healthcare duties may share territories. The difficulties arising from such overlap may be compounded by the shifting responsibilities identified in national plans.[2] The parameters of historical professional domains of diagnosis (GPs and hospital doctors), prevention (public health professionals) and dispensing (pharmacists) have shifted.

Pharmacists' competencies

Professional competencies

Professional competencies requirements mirror national contract requirements and are detailed by the professional regulatory body.[20] While country variations exist, the performance standards and competencies of the General Pharmaceutical Council offer a representative summary of the competencies required to deliver the MAS in England, and all pharmacists involved in the MAS have a professional responsibility to develop, reinforce and update their knowledge and skills.

Required competencies

The required competencies are to:

- implement the scheme in accordance with the law, with the Code of Ethics and with other relevant codes of conduct or practice, including systems for clinical governance

- uphold quality by ensuring knowledge of the diagnosis and treatment of minor ailments, including differential diagnosis of minor illness versus major disease that is up to date and is evidence based
- be able to communicate with, counsel and advise people appropriately and effectively on minor ailments
- respect and observe client confidentiality, and communicate with clients appropriately and sensitively
- be able to assess the medication needs of patients
- be able to act on referrals from, and make referrals to, other healthcare professions and other sectors such as social care
- be able to promote the service appropriately to the public
- be able to explain the provision, range of conditions covered and features of the service to the public and other appropriate professionals
- record learning activities relevant to the management of minor ailments; evaluate if learning objectives were met, and identify further learning needs with regards to the above learning activities; apply learning to practice, and apply learning to practice for minor ailments.

These competencies may be achieved through a formal programme of study or self-directed learning. The pharmacists may complete the Centre for Pharmacy Post Graduate Education (CPPE) Minor ailments CD ROM, Minor ailments – paediatrics workshop, Minor ailments – supporting self-care workshop and Winter ailments workshop to assist them in meeting many of the competencies required and listed above.

Summarising core competencies in relation to administrative processes is more complex and requires awareness of the national information technology infrastructure. In essence, such competencies are predicated very much on the nature of the underlying health structure. In England, at the time of writing (November 2015), the Health & Social Care Information Centre was managing 49 systems, in order to ensure efficient and secure information management.[21]

From the countries reviewed, the following MAS features were identified:

1. a nationally agreed list of minor ailments eligible for inclusion in the scheme, supported by a nationally agreed drug formulary from which treatments provided under the scheme are chosen
2. service delivery contract – a national service or a national agreement
3. a nationally agreed advice and treatment plan underpinned by protocols on clinical governance, including clinical governance administrative responsibilities
4. surveillance methods
5. criteria for eligibility, and
6. methods and levels of financial reimbursement.

Protocols on the clinical governance of the MAS were observed to cover both clinical practice and administration of the scheme. The clinical capacities and administration requirements addressed included:

- **Clinical**: which includes assessment, advice, treatment and referral; sometimes additional information on factors such as the epidemiology of the condition is required. (Annex 2)
- **Administrative**: pharmacy and pharmacist requirements, contracts, patient registration and associated record-keeping, record submission, financial accountability and surveillance requirements. (Annexes 3, 5 and 6)

Summary

In the Introduction to this review we provided background or context on the changes in the roles of health professionals and the broadening of the pharmacist's role, which aims to better use pharmacists' skills and dedication. We listed the range of pharmacy-based services, including the MASs, that have been introduced across the four jurisdictions of the United Kingdom. In addition to the package of pharmacy-based services, we demonstrated how the underlying health service, the delineation of professional responsibilities, the supporting infrastructure, governance practices and related competencies impact on service delivery.

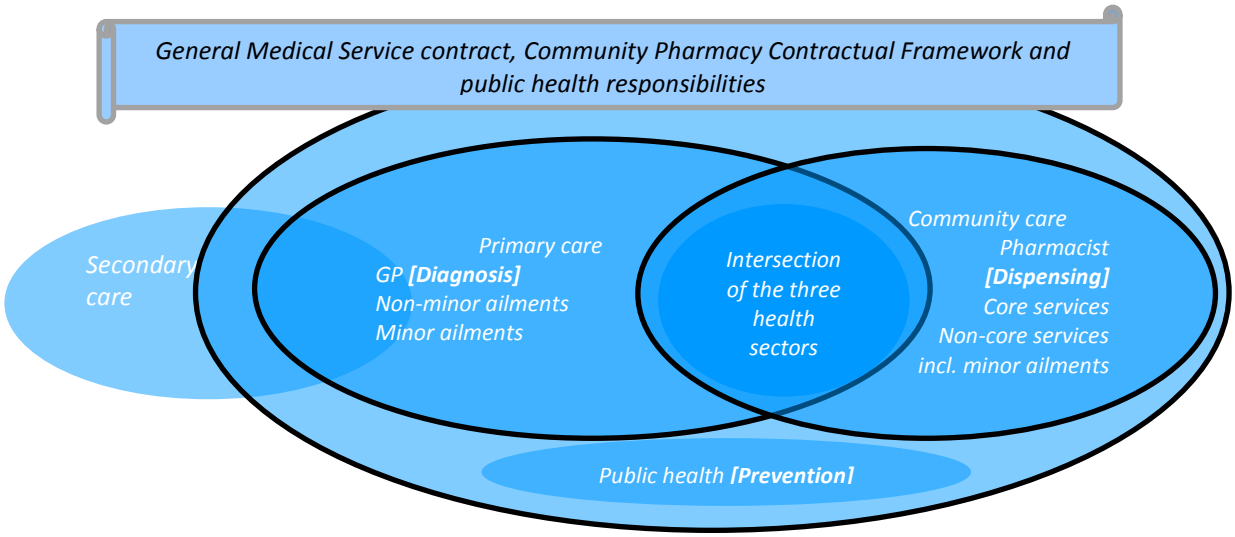


Figure 2 **Community care, health professionals and responsibilities in the wider healthcare sector**

Findings

Question 1

How are MASs structured, with particular reference to scope, training, and protocols?

This section describes the structure of the MAS in the four jurisdictions of the United Kingdom (Scotland, England, Wales and Northern Ireland) and in the province of Saskatchewan in Canada. It addresses the scope of the scheme for each country, listing the national or locally agreed formulary for minor conditions, the demographic characteristics of the population eligible for the scheme, and the national geographical spread of the scheme. It describes approaches to, and the areas covered in, MAS training. Finally, it identifies the protocols arising from documenting the steps to be followed in administering the scheme – specifically in relation to diagnosis and treatment, and in administrative matters including payment mechanisms.

What is a minor ailments scheme (MAS)?

Advice on minor ailments and self-care is a core pharmacy-based service in Australia, Canada, New Zealand and the United Kingdom. A MAS is a service that provides advice and treatment for a list of nationally agreed health-related conditions at the pharmacist. Payment for the services provided through the scheme is publicly funded and is available to all persons who are eligible to register. Minor ailments are conditions that lie on the continuum of individual self-care and medically administered care (Figure 3). It refers to one of the first points of contact between the individual and the healthcare professional. Self-care is defined as '*The action individuals take for themselves and their families to stay healthy and manage minor and chronic conditions, based on their knowledge and the information available and working in collaboration with healthcare professionals where necessary.*'[22]

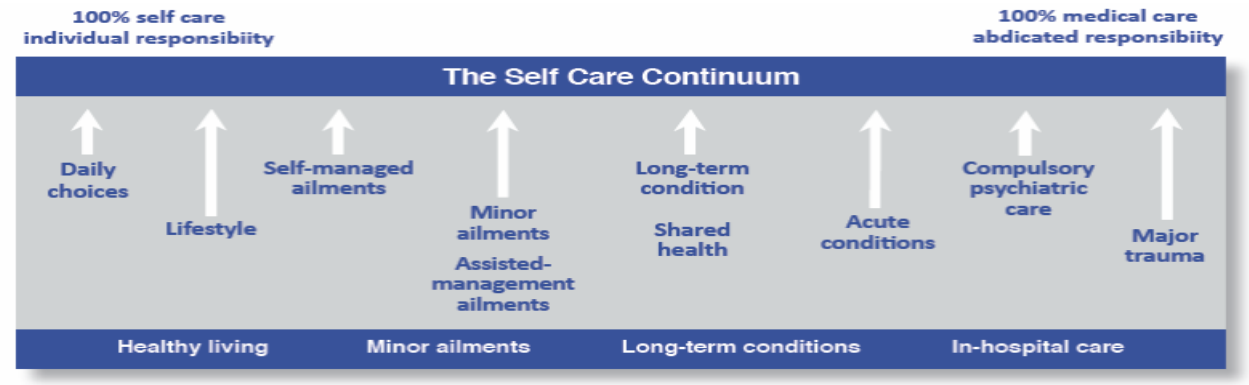


Figure 3 **The self-care continuum**

Scope of the MAS

Minor ailment conditions

Conditions of the respiratory and central nervous system and of the sensory organs (skin, eyes and ears), specific infections (including bacterial, viral and fungal), and disorders of the urinary tract may be included in the national MAS list. In Scotland, additional treatments included specific vitamins and homeopathic care. The

number of eligible conditions varies from 15 to 35, depending on the country. A representative sample of conditions encompasses indigestion, constipation, diarrhoea, haemorrhoids (piles), teething, nappy rash, colic, hay fever, head lice, chicken pox, threadworms, sore throat, athlete's foot, eye infections, conjunctivitis, mouth ulcers, cold sores, acne, dry skin, dermatitis, verruca, back pain, ingrown toenails, vaginal thrush, oral thrush and scabies. The complete country-specific range of ailments is reported in Annex 4 (MAS scope and MAS conditions).

Demographic characteristics

Eligibility to participate in the scheme varies by country, by local contracting considerations, and by pharmacy participation.

In Scotland, the MAS is a national service and is one of the core pharmacy-based services that pharmacists with a NHS contract are obliged to provide to persons who fulfil the criteria for age thresholds, certifications or benefits. Pharmacists can prescribe for any condition for which the use of a pharmacy medicine (P), General Sale List (GSL) or Prescription Only Order Medicine (POM) (through patient group directions (PGDs)) allows, with the exception of specific drugs such as over the counter (OTC) simvastatin and nicotine replacement therapy (NRT) which are not aimed at treatment for minor, self-limiting conditions. Although local MAS formularies may break down drugs by the disease states MOST likely to be treated by same medicine, this is not exhaustive, and pharmacists can treat symptoms as appropriate within their professional competence and confidence.

The eligibility criteria include those who:

- are under 16 years, under 19 years and in full-time education, or who are aged over 60 years
- have a maternity, medical or war pension exception certificate
- are named on, or are entitled to, a NHS tax credit exemption certificate or a valid HC2 certificate
- receive benefits, e.g. income support, jobseeker's allowance, income-related employment and support allowance, or have a pension credit guarantee credit.

Persons not eligible for the scheme include those who are not registered with a Scottish GP practice, temporary residents, and patients in care homes (nursing and residential homes).[23] Persons in nursing and residential homes are eligible for necessary services under other regulatory provisions.

The number of community pharmacies in Scotland increased from 1,155 in 2005 to 1,246 in 2015 (Table 3).[37, 38] Over a somewhat overlapping time period, 2008–9 and 2014–5, the number of persons registered for the MAS was between 660,439 and 913,483. Taking the 2011 population estimate of 5.3 million as the denominator, this gives a crude approximation of between 12% and 18% of the population as registered to use the service.[39]

In England and Wales, the MAS is one of a basket of pharmacy-based services that pharmacists can be contracted to deliver by the local health commissioning authority. The suite of pharmacy-based services is nested within a wider basket of health or social care services that health commissioners may choose to deliver. The basket of services that health commissioners opted to deliver takes account of the socio-demographic profiles of the served population, local morbidity incidence and prevalence rates, and budget constraints. The components of the service to be delivered are determined based on a local assessment of needs – the **needs assessment**.[1] In addition, the MAS is an optional, non-obligatory, pharmacy-based service across the health

[1] **Joint Strategic Needs Assessment (JSNA)**: Primary Care Trusts (PCTs) and local authorities are required to produce a JSNA of the health and well-being of their local community. This is a requirement of The Local Government and Public Involvement in Health Act 2007. The introduction of the JSNA and world

authorities of England (the situation in Wales at the time of writing is in a state of flux). The fragmented nature of MAS delivery in England and the lack of a publicly accessible centralised information system for the scheme curtailed a systematic assessment of conditions treated or the population served. However, the Pharmaceutical Services Negotiating Committee[2] (PSNC) reported on the MAS from 77 of the 78 local pharmaceutical committees in February 2015[3] (Isle of Man not included). The PSNC stated that 48 (62%) local pharmaceutical committees have a total of 76 commissioned MASs, with the majority of services (77%) commissioned by clinical commissioning groups (CCGs).[27]

Findings from the PSNC identified the following eligibility criteria:

- exempt from NHS prescription charges and registered with a general practice that is a member of the local CCG
- eligible for free prescriptions (because of age, long-term conditions or eligibility for certain benefits)
- aged 3 months to 16 years, when accompanied by a parent/guardian and registered with a local GP
- registered with a local GP
- living in specific locality and not registered with a GP practice, e.g. travellers and asylum seekers. Registration is limited to one accredited pharmacy, and access is limited to three times in a six-month period.
- exempt from NHS charges
- eligible for free medication and free prescriptions on the grounds of low income, aged 16 to 18 years in full-time education or aged > 60yrs
- treatment for head lice: products may be supplied to all family members free of charge if children under the age of 16 years (or aged 18 years and in full-time education) are also being treated.

The conditions agreed following local needs assessment and contracted for by the commission body are summarised in Annex 4. Table 14 presents regional variation in service treatment requirements and delivery.

The number of community pharmacies in England increased from 9,736 in 2005 to 11,647 in 2014 (Table 3). It is not possible to deduce from PSNC data how many pharmacists are involved in the 76 MASs commissioned throughout the country. However, data from the Health & Social Care Information Centre reported 1,579 MASs commissioned from community pharmacies in the 2013–2014 period. This suggests that in this period about 13.5% of community pharmacies provided a MAS. It should be noted that the 2013 to 2014 figures represent a

---

class commissioning (WCC) marks a sea change in the way in which the Department of Health (DH) requires Local Strategic Partnerships (LSPs), PCTs and Local Authorities (LAs) to consider the needs of their local populations and how they respond with effective commissioning of services to properly meet those needs. The needs of populations span NHS and LAs; for example, the joined-up provision of stroke care services, and coordinated approaches to obesity and physical activity. Current policies aim to ensure that services are provided more flexibly, thus better supporting the needs of local communities, and are more effective in targeting the causes of health problems by intervening at much earlier stages. In order to support this challenging agenda, it is essential to have a clear understanding of the needs of the whole population and the wider determinants of health, from both the perspective of the National Health Service (NHS) and the LA.[24]

[2] The **Pharmaceutical Services Negotiating Committee** (PSNC) is recognised by the UK Secretary of State for Health as representative of community pharmacy on NHS matters. The PSNC's main objective is to secure the best possible remuneration, terms and conditions for NHS pharmacy contractors in England and Wales. Much of the PSNC's work involves discussions and negotiations with the Department of Health.[25]

[3] **Local pharmaceutical committee:** An independent statutory body bound by Section 44 of the National Health Service Act 1977 (UK) and its regulations, which represents the interests of individuals providing pharmaceutical services at a local level under the Act. Local Pharmaceutical Committees (LPCs) represent all NHS pharmacy contractors in a defined locality. LPCs are recognised by local NHS primary care organisations and are consulted on local matters affecting pharmacy contractors.[26]

decrease of over 50% in the number of pharmacies delivering the MAS in the preceding five years. The reasons for this drop are unclear, but it has been suggested anecdotally that it may be due to uncertainty arising from the commissioning requirements of the Health and Social Care Act 2012 (Annex 7). The 2012 Act widened the needs assessment process to include social care needs and the pooling of health and social care budgets. This resulted in significant changes in commissioning authorities' priority setting.

As is the case for England, national-level figures on the MAS in Wales have been limited to information on the number of pharmacists contracted to deliver the scheme. This ranged from six in 2005–6 to 36 in 2007–8, with an intermediate decline in numbers to 23 in 2010–11, after which an increase of 32 in 2013–14 was noted. There were 714 community pharmacies in Wales on 31 March 2014, representing an increase of two from the 712 figure recorded on 31 March 2013; however, in general, the total number varies little from year to year (see Table 3). As a crude percentage estimate, this represents delivery of the MAS in between 1% and 5% of Welsh community pharmacies in the reported period.[42] In addition, like England, eligibility criteria were based on local assessment of need by the commissioning authority.

Table 3 Number of pharmacies in the four jurisdictions of the United Kingdom

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Scotland[28]	1,155	1,166	1,182	1,192	1,207	1,215	1,231	1,237	1,242	1,245	1,253
England[29]	9,736	9,872	10,133	10,291	10,475	10,694	10,951	11,236	11,495	11,647	
Wales[30]			706	707	706	707	708	710	713	714	
Northern Ireland[31]	510	515	516	520	524	529	532	534	533	535	

National service or national agreement

The MAS is provided as a national service or under national agreement. The national service provides advice and treatment to all persons eligible to register for the scheme. Eligibility may encompass the entire population or persons with specific characteristics or thresholds of such characteristics. The national agreement provides advice and treatment to those deemed eligible to register for the scheme following a local health authority needs assessment. The needs assessment determines not only eligibility but treatment to be covered by the scheme. The population group and ailments identified as eligible for the locally determined schemes are within population and ailments parameters agreed at national level; however, they do not necessarily offer as extensive a cover as may have been nationally agreed. Under a national service, all eligible persons are entitled to participate in the scheme and the pharmacists contracted by the health service/authorities are obliged to provide the service. Under a national agreement only the specified population, selected conditions and their treatments identified by the local health authority are funded and provided, and thus regional differences exist. In addition, interested eligible local pharmacists can apply to deliver the scheme but, as the MAS is not a core pharmacy-based service, they are not obliged to do so. Therefore, geographical coverage is dependent on pharmacy participation. However, some countries which operate under a national agreement have been observed to have almost 100% national coverage. Consequently, where pharmacy delivery uptake is extensive, population eligibility is what determines national coverage levels.

Training and protocols for the MAS

Two key MAS training approaches have been identified. Training may be delivered by the local health authority commissioning the service; alternatively, pharmacists may undertake structured examination-based distance training programmes. As part of a wider education programme both approaches build on prior knowledge,

including consideration of skills and experience gained from delivering other pharmacy-based services. However, each training programme is a stand-alone model.

The reasons for the different forms of delivery are not overtly clear, but may reflect a combination of the following factors:

- the underlying ethos of healthcare delivery (in Scotland, the MAS is a core pharmacy-based service, reflecting the emphasis on public health in community health; in England, service delivery by pharmacists is optional).
- the consolidation of pharmacy-based service training requirements in distance learning modules
- the shift in professional training requirements facilitates a culture of continuous professional development with the supporting educational milieu.

Regardless of the form of delivery, training covers the clinical pathways of care and governance encompassing the related information technology skills/competencies.

Over time, the competencies specific to individual pharmacy-based services were aligned with training programmes and contracting specifications. The core competencies requirements for the MAS linked to the General Pharmaceutical Council (GPhC) pharmacist competencies are reported in Table 1. These competencies may be achieved through a formal programme of study or self-directed learning. The GPhC endorses the professional obligation that pharmacists and pharmacy technicians keep up to date with current practices and the skills required to deliver the agreed suite of pharmacy-based services. This approach reflects the processes used by GPs and other healthcare professionals commissioned to deliver local services. The model builds on the concept of self-assessment and self-declaration, and provides pharmacy professionals with a framework to demonstrate that they have the skills and the knowledge necessary to deliver services.

The three step of the model are:

- Learning and development needs – details the recommended learning and assessment requirements to meet the minimum competency requirements for the service.
- Self-assessment framework – the framework includes competencies in a question format that relates to the clinical, ethical, cultural and legal aspects of delivering each service. If pharmacy professionals are able to answer 'yes' to all competency questions and, importantly, can provide evidence of learning and assessments completed (such as certificates on completion of training), they can be confident that they meet the service's competency requirements. Recommendations in the learning and development section – about how to fill any gaps in meeting all the competencies – are also included.
- Self-declaration of competence – the pharmacy professional has the competencies to deliver the specific service where the training and self-assessment process has been successfully completed. A personally generated declaration certificate from the Centre for Postgraduate Pharmacy Education (CPPE) website features details of all the learning programmes and assessments which an individual has successfully completed, and which can be provided to employers and commissioners as evidence of competence.[32]

The learning and development needs detail the recommended learning and assessment requirements to meet the service's minimum competencies. The self-assessment framework assesses competencies related to the clinical, ethical, cultural and legal aspects of service delivery. Pharmacists who are able to answer 'yes' to all competencies, and who can provide evidence of learning and assessments completed (such as certificates on completion of training), meet the required standards. The self-declaration of competence is a personally

generated declaration certificate from the accredited training website (for example CPPE website) detailing the learning programmes and assessments an individual has successfully completed. These certificates can be provided to employers and service commissioners. Pharmacists are expected to revalidate this self-certification every two years, or when training modules are updated.

The key areas addressed in the MAS clinical training modules are summarised in Table 4. Examples of three country-specific clinical protocols are presented in Annex 2: Clinical protocols details.

Table 4 Clinical governance assessment for minor ailments in the four jurisdictions of the United Kingdom

Areas addressed in the clinical training modules
Background, description of, and/or sign and symptoms of, the condition
Danger signs and/or complications
Differential diagnosis
Treatment options (general drug information)
Specific drug, its dosage and route of administration
Practice tips, general management and advice, including contacts of index patient
GP referral criteria
Prognosis
Epidemiology (descriptive, some demographic detail)
Illustration of the specific conditions
Investigation
References for further reading

The key components of each country's clinical and governance training programmes or modules are summarised in Table 5.

Table 5 Clinical governance training protocols for the four jurisdictions of the United Kingdom

Training module
Scotland: NHS Education for Scotland[33] Responding to minor ailments – Distance learning pack Overview: This pack explores minor ailments which frequently present in the community pharmacy, and which are more likely to do so with the implementation of the Minor Ailments Service in Scotland, and the introduction of enhanced services in England and Wales. The training module takes approximately eight hours to complete, and the duration of each module is approximately one hour. The pack, which is available as a PDF and also as a paper-based resource, comprises seven sections: 1. Gastro-intestinal system; 2. Respiratory system; 3. Central nervous system; 4. Infections and infestations; 5. Obstetrics, gynaecology and urinary tract infections; 6. Eyes, ears and oral health; 7. Skin. It was first published in 2006, was revised in 2008, and revised again in 2012.
Scotland: NHS Education for Scotland[34] The minor ailments service: implementation pack Overview: This resource enables the trainee to describe how the MAS will operate, understand how the technology underpinning this part of the contract (eMAS) will facilitate the delivery of the MAS, identify the key personnel who will support the implementation of the MAS, and outline the main steps involved in submitting forms for payment. The resource comprises seven sections. 1. Introduction to the pack: Introducing the Minor Ailments Service; 2. How the Minor Ailments Service (MAS) Works; 3. Using eMAS Software; 4. Payment Processing; 5. Key Steps to Implementation of MAS; 6. Abbreviations/References; 7. Appendices. The pack was published in June 2006.
Scotland NHS Education for Scotland[35] eMAS quick reference guide Overview: This quick reference guide details as a flowchart the eMAS registration process, the eMAS consultation process, eMAS consultation where a CHI number is not known, cancelling an eMAS consultation, the eMAS withdrawal process and submitting your GP34 form.

Training module
England (Barnsley Clinical Commissioning Group) Community Pharmacy MAS March 2014[36] March 2014
England The Centre for Pharmacy Postgraduate Education[37] Minor ailments services – A starting point for pharmacists The guide comprises three sections. Section 1: Self-care and minor ailments services: new roles for pharmacy; Section 2: NHS-funded minor ailments services: skill mix and service implementation; Section 3: Clinical governance and minor ailments services. The guide also includes the following: Checklist – assessing how ready you are to deliver an NHS-funded minor ailments service; Appendix 1 – Example of a treatment protocol template used in an established minor ailments service; Appendix 2 – Example of an FFParm used in an established MAS. Originally published in 2007. Updated in March 2009.
Wales: All Wales Choose Pharmacy Formulary[38] May 2015
Welsh Centre for Pharmacy Professional Education[39] Course code: 2MA, Minor ailments Overview: The distance learning pack provides background knowledge for the enhanced service 'Minor Ailments'. The pack looks at the clinical management of minor ailments which frequently present in the community pharmacy. The learning objectives are: recognise the symptoms of common minor ailments and offer support and advice; evidence-based recommended over-the-counter treatment of common minor ailments; recognise danger symptoms and know when and where to refer patients. Undated.
Wales Centre for Pharmacy Professional Education[40] Course code: CoAiSc Overview: This programme provides background information on the common ailments scheme (CAS) currently being trialled in two areas of Wales. It explores the technology that facilitates the delivery of this scheme, focusing mainly on the information governance aspects, as well as looking at the conditions covered. Learning objectives include the following: being able to discuss how the CAS will operate; understand how the technology underpinning this service will facilitate the delivery of the CAS; identify the key personnel who will support the implementation of the CAS; outline the main steps involved in registering patients and submitting forms for payment; how CAS is to be provided (course first introduced in February 2015).
NHS Wales Informatics services[41] Choose pharmacy Version 2.0 training guide. Available from Andrew Evans. Paper authors: Laurence James/Lindsay Price at NHS Wales Informatics Service
Northern Ireland[42] Northern Ireland Centre for Pharmacy Learning and Development Minor Ailments Continuing Professional Development This distance learning course looks at all minor ailments that frequently present in the community pharmacy. The course is split into seven sections (Gastrointestinal; Respiratory; CNS; Infections and Infestations; Obstetrics, Gynaecology and Urinary Tract Infections; Eyes, Ears and Oral Health and Skin). First printed in 2008. Reprinted with amendments in 2009 and 2013.
Northern Ireland Business Services Organisation[43] MAS Formulary Version 4.2 Created 1 June 2015 A series of treatment algorithms provided to allow a step-by-step progression through the process of diagnosis and treatment.

National formulary

In general, the nationally agreed minor ailments formulary is a subset of the wider national formulary, and the nationally agreed advice and treatment plan differs little across countries. National drug tariffs are updated on an ongoing basis, often monthly. National formularies are updated on an ongoing basis, often six-monthly. Local formularies are developed based on the wider national formulary and are also updated on an ongoing basis. The most current drug tariffs and formularies links are reported in Annex 4 (see Table 16).

Summary

Question 1 addressed the area of MAS structure, specifically with regard to scope, training and protocols. From the evidence, we defined scope as the list of conditions in, and populations eligible for, the scheme. We observed national variation in both the range of conditions and population characteristics eligible for inclusion in the scheme. However, all schemes included some combination of illnesses of the respiratory and central nervous system, the sensory organs (skin, eyes and ears), specific infections (including bacterial, viral and fungal) and disorders of the urinary tract in their national MAS list. The number of conditions managed by pharmacists under the MAS varied in each jurisdiction, from 15 to 35, and included conditions such as indigestion, constipation, diarrhoea, haemorrhoids (piles), teething, nappy rash, colic, hay fever, head lice, chicken pox, threadworms, sore throat, athlete's foot, eye infections (such as conjunctivitis), mouth ulcers, cold sores, acne, dry skin, dermatitis, verruca, back pain and thrush (vaginal and oral). Eligibility for the service was determined by factors such as age and income thresholds, and service provision was universal to those who met the criteria, or service provision was based on a locally determined needs assessment. Professional training to deliver the scheme was initially provided by regional health authorities and has evolved into distance learning modules delivered by postgraduate education centres. The modules address the clinical and wider governance competencies requirement of the schemes as specified by the national list of MASs, the agreed drug formularies and the relevant professional regulatory requirements. Training modules are customised to take account of national MAS requirements and the nationally relevant ICT infrastructure of the wider health system.

Question 2

What governance structures are used to regulate, to undertake surveillance and to monitor these schemes?

This section describes the governance (rule-making, judgement and administration) structures of the MAS. The term regulation is defined as a rule or directive made and maintained by an authority. Surveillance is defined as a functional capacity for data collection analysis and dissemination to public health.[44] Monitoring, in management, is defined as the episodic oversight of the implementation of an activity, seeking to ensure that input deliveries, work schedules, targeted outputs and other required actions are proceeding according to plan.[44]

Governance structures

The following regulatory, surveillance and monitoring instruments were identified: national and local contracts, service level agreements, assurance frameworks, structured data collection forms, ICT database collection systems, on-site monitoring visits and data analysis processes. The key contracts, agreements, frameworks, forms and ICT databases are listed in Table 6. Details on and from these instruments are reported in Annexes 3, 5 and 6.

As observed when reporting on training, issues of MAS governance benefited from being nested within the wider national package of pharmacy-based services. Similarly, awareness of MAS governance is strengthened by existing within this wider context.

Table 6 Governance structure: contracts, agreements, frameworks, forms and information and communications technology databases

Country	Paper-based processes	Annex location	Computerised processes for the MAS itself
Scotland	Form CP2 (SS)(5)	Annex 3: Data collection and registration forms	ePharmacy Programme – system-wide pharmacy programme Patient Registration System (PRS) developed to allow community pharmacists to register patients eMAS – Minor Ailments Scheme database Electronic transfer of prescriptions (ETP) ePharmacy Message Store (ePMS) – gateway and store for encrypted messages sent between GP systems, community pharmacy systems and National Services Scotland (NSS)
England	Community Pharmacy Framework assessment National contract, local pharmaceutical service contract and/or service level agreement	Annex 6: Contracts and agreements	PharmOutcomes
Wales	Pharmacists listing form. The request to access the Choose Pharmacy application Wales	Annex 3: Data collection and registration forms	Choose Pharmacy
Northern Ireland	Consultation and Pharmacy Voucher forms. Health and Social Care Board (HSCB) Community Pharmacy Minor Ailments Service Supporting Self-care manual	Annex 6: Contracts and agreements	

Scotland

In Scotland, the MAS service is a core (this is essential) pharmacy-based service and the terms of provision are stipulated in the Community Pharmacy Contract. Patient consent to participate in the scheme, and agreement by pharmacists to deliver the scheme, is recorded by reading and signing the CP2 (SS)(5) form. Payment claims are made by completing the GP 34 form. All subsequent processes are automated. An optical reader scans the dispensed prescriptions. Prescription data are transferred electronically and mapped to the drug dictionary through an ePay Programme and, consequently, payment remuneration (fees and allowances) and reimbursement (of drug costs) are automated. The pharmacist and patient signed forms are retained in the pharmacy.

The Scottish ePharmacy infrastructure contains the ePharmacy Message Store (ePMS) and is linked to the central Patient Registration System (PRS). The ePMS allows encrypted messages to be transferred between GP systems, community pharmacy systems and National Services Scotland (NSS). The PRS uses the Community Health Index (CHI) to access the patient's unique identifier, which allows community pharmacists to register patients for the MAS (and other pharmacy-based services) using previously recorded information.

All Scottish community pharmacies are connected to N3, and the system supports all current e-service developments. This includes access to NHS e-mail system and a standardised drug dictionary which has been developed to enable a common language between GPs, pharmacy systems and NSS. The system has also been

designed to allow accommodation of further system developments. The system complies with the national and European guidelines and is within the direction of the National Information Management and Technology strategy. This will allow, for example, that data collected in ePharmacy transactions can be a contributed to the Electronic Health Record (EHR) in the future.

A key action in the ePharmacy programme was early engagement with the system suppliers to inform them fully of the strategic and operational direction of the programme and to secure their commitment to configuring their systems accordingly. The wider Information Management and Technology Facilitation Programme for community pharmacy is centrally funded, supporting delivery of the ePharmacy Programme. Each Local NHS board provides local facilitator/s. In addition, the ePharmacy Helpdesk deals with calls relating to the operation of the MAS/ePharmacy system, and the patient registration support team can intervene, if and when required, to support the registration process.[45] The monitoring of the Scottish MAS may be subject to change, and trends in the use of this MAS available from the National Information and Intelligence NHS Service on payment of a fee.

England

As a locally commissioned pharmacy-based service in England, the MAS is nested within the wider governance structures developed to ensure service quality at a national level, but with the local service commissioner individually contracting the terms and conditions of service delivery.

The Community Pharmacy Assurance Framework (CPAF), the first toolkit to assess pharmacy-based service standards in England, was developed by the regional policy and administrative health bodies and was published in September 2005. The framework has been evaluated and updated as pharmacy-based service provisions have been expanded and rolled out. Earlier updates have been produced by Primary Care Commissioning, working with the Pharmaceutical Services Negotiating Committee (PSNC). Subsequent changes to the framework have been made, following the 2011 introduction of the New Medicine Service (NMS), targeted Medicines Use Review (MUR) and changes to clinical governance arrangements.

The CPAF details standards required in the provision of core and advanced pharmacy-based services. It is not specific to the MAS. Additional requirements for locally commissioned services were published by the Department of Health and made permanent in the Local Pharmaceutical Service contract in 2006. Each locally commissioned service is authorised using a separate pharmacy service contract. The key features of CPAF monitoring and surveillance, as well as the requirements of the local pharmaceutical service contracts, are presented in Annex 6 (Contracts and agreements). In brief, MAS governance covers assessment of physical structures, pharmacy capacity, pharmacists' competencies, adherence with clinical standards, adherence with financial standards and record-keeping standards, as stipulated in national contracts, service level agreements and community pharmacy framework assessments. Standards are assessed through on-site visits and off-site data analysis, and surveillance can be through examination of on-site paper records or analysis of computer records. ICT systems were observed to be both publicly and privately funded, and standalone or integrated into the broader health infrastructure.

NHS England has assumed monitoring responsibilities for pharmacy services under the Health and Social Care Act 2012. Pharmacy services, which are moving towards greater automation, include a clinical framework assessment using a risk-based approach. NHS England assesses concordance with the terms of the framework and other specifications stipulated in service level agreements. Any pharmacy that triggers one of the following conditions receives monitoring visits:

- included in the pharmaceutical list since June of the previous financial year
- where there has been a change of ownership since June of the previous financial year
- where issues are identified in the completed CPAF documents, and
- where issues have been previously identified by a Primary Care Trust or NHS England.

Data recording on framework assessments components is increasingly being undertaken using PharmOutcomes. PharmOutcomes is the community pharmacies' web-based system which aims to make it easier for commissioners to audit and manage services. PharmOutcomes provides integrated systems for the provision, invoicing and management of locally commissioned services. Records are kept in whatever location the pharmacist deems to be relevant to the care of the patient. PharmOutcomes is a commercial system[41] and details on the functionality of the system are limited. Due to issues of commercial confidentiality, however, it was apparent that the move to automating administrative processes is well established.

The MAS is delivered in England under a national agreement. Commissioning groups, formally the Primary Care Trust (but since the 2012 Act became law, either clinical commission groups or NHS England) assess local health needs. Pharmacies may, but are not obliged to, submit an offer to supply services which have been identified by the NHS as necessary, stipulating the local service specifications (see Annex 6: Contracts and agreements). The PSNC and the Department of Health are currently negotiating terms for a pharmacy-based service, and it is possible that changes to the current monitoring procedures may arise from these talks.

Wales

Between 2005 and 2012, MAS service provision in Wales mirrored that of England. However, the government's manifesto commitment to widen pharmacies' role in the community has effected changes, and in 2013 the scheme was trialled in 32 pharmacies in two health board areas in Wales. MAS piloting, known as Choose Pharmacy, was completed in July 2015; the findings are with the government, and agreement on how the service is to be delivered nationwide was awaited at the time of writing (November 2015). Governance processes reported here reflect practices undertaken in the piloting scheme.

Following initial application by a pharmacist to the NHS Shared Services Partnership (NWSSP) to deliver Choose Pharmacy, pharmacists, including the applying locum pharmacist, are issued with an approval letter advising them of their NHS Windows login details and NHS e-mail account. (See Annex 3: Request to access the Choose Pharmacy application Wales). Training in using the Choose Pharmacy application is provided by service delegates (persons who support the service) on request, and documented instructions on the use of Choose Pharmacy, with or without supportive training, is provided to community pharmacies. The Choose Pharmacy application is web based and builds on the previous electronic Common Ailments Service (eCAS). Only an accredited pharmacist can apply to deliver the scheme and all pharmacists must read the Confidentiality Code of Practice before commencing service delivery. The e-learning module for the Common Ailments Service which includes information about governance and system use, is available from the Welsh Centre for Pharmacy Professional Education (WCPPE).[46]

The Choose Pharmacy application was developed by the NHS Wales Informatics Service (NWIS) in partnership with the Welsh Government, Community Pharmacy Wales (CPW), Royal Pharmaceutical Society (RPS), Health Boards, and the NHS Wales Shared Services Partnership. The project adopted a user-centred design process with frontline users from across Wales, and was designed and developed according to their requirements. Once registered, the community pharmacists may provide consultation and treatment for a defined list of 26 common ailments. Automation of the service has resulted in an almost completely off-site surveillance process.

A series of steps is followed in order to register a patient on the Choose Pharmacy online application. The pharmacist selects the type of consultation from the 'New consultation' menu and then selects 'Common ailments' as the reason for attendance. The patient details are recorded: name(s), date of birth and postcode for those aged under 16 years, in addition to the patient/guardian's proof of identity. The Common Ailments Service (CAS) uses the Welsh Demographic Service (WDS) to search for patients, and those registered with their GP at the address given during the pharmacy consultation will be identified by the system. If previously registered at another pharmacy, registration can be transferred to the current pharmacy.

The patient record is pre-populated with their GP details, and a historical review of all previous consultations in reverse chronological order can be viewed on the screen. Information on the current visit is entered through the selection of options from a series of drop-down menus covering a predefined list of presenting ailments, underlying medical conditions, allergies and allowable treatments; alternatively, where the patient requires referral to a GP, the 'referral' option is selected. Once data input is completed and saved, the print prescription option becomes available, and may be activated as required. At present, Choose Pharmacy does not integrate with other patient data information systems such as the Patient Medication Record (PMR). Leaflets containing information on a specific minor ailment being advised on or treated can also be accessed and printed for the patient.

All access to the Choose Pharmacy online application is recorded and audited using the user (pharmacist) issued name and password credentials. All attempts to enter the system are logged by Account Control 3 auditing protocol to monitor unauthorised use. The Data Protection (1998) and Computer Misuse Acts (1990) cover data in this application where unauthorised access to the system is unlawful under UK law. Users are not allowed to share their username or password with anyone. Unauthorised access to this application and the services provided will be investigated and the offenders prosecuted.

Patients can opt in or out of the service at any time and the community pharmacist can de-register the patient from within the application, or the patient can transfer their registration to another community pharmacy. At this point, all historical consultations and reviews are no longer available to the previously registered community pharmacy.

Northern Ireland

At present, Northern Ireland does not have a Scottish (eMAS), English (PharmOutcomes) or Welsh (Choose Pharmacy) equivalent ICT database system. MAS monitoring is undertaken by a team from the Health and Social Care Board (HSCB). Returned pharmacy forms and overall reimbursement rates are examined for statistical outliers, and Consultation and Pharmacy Voucher forms (see Annex 3) from the top outliers are matched in order to assess data concordance. The Master Price File report aggregates data for payment to community pharmacy contractors.[43] Monitoring procedures consist financial, and not clinical, service audits of statistical outliers, such as high levels of consultation for MASs in low-dispensing pharmacies or high consultation levels in a specific pharmacy relative to others in the same geographical area.

A framework for auditing is presented in the HSCB Community Pharmacy Minor Ailments Service Supporting Self-care manual.[44] The HSCB may elect to audit and evaluate the MAS on site periodically. The HSCB service specification stipulates that:

- Records must be maintained and made available in a manner which facilitates audit requests, having due regard to patient confidentiality and data protection legislation.

- The service is to be delivered in conjunction with the Northern Ireland service protocol and formulary.
- Locally adapted practice protocols/formulary are to be reviewed annually by the contracted pharmacy, and records must clearly identify the date of the reviews.
- Practice protocols and formulary must be readily accessible, and arrangements must be in place which ensure that all staff, including locums, are adequately informed.
- Only medicines listed within the formulary are to be supplied, and adequate stocks must be maintained.

The audit format addresses the questions stipulated in the minor ailments criteria MA1 (below) which score outcomes as Y (achieved), N (not achieved) or N/A (not applicable). The questions, which align with the 'over the counter' audit questions, are:

- Does the pharmacy maintain a current protocol and formulary which is regularly reviewed?
- Is the consultation completed by the pharmacist?
- Are medicines stocked and supplied in accordance with the formulary?
- Do the products supplied comply with the code of ethics requirements, including labelling and the provision of advice on how to take the medicine?
- Are vouchers completed in accordance with HSCB and BSO guidance?
- Are consultation forms completed in accordance with HSCB requirements, and are they retained?
- Are records made available for audit purposes?

Comments on actions to be taken following the audit, the target date to achieve the required actions, as well as the date actions were inspected and identified as completed, are all included on the form.

Consultation forms (see Annex 3) on which data regarding the patient's demographic characteristics, source of referral, symptoms and the duration of same, underlying medical conditions and treatment provided are recorded must be retained for the following time periods: adults – eight years after the conclusion of treatment; children and young people – until their 25th birthday or until their 26th birthday if the young person was aged 17 years at the conclusion of treatment.

The Pharmacy Voucher (see Annex 3) is the coded form confirming the medicines supplied and the consultation fee, and is forwarded to the Business Services Organisation (BSO) for payment on a monthly basis in accordance with the directions stated in the protocol. In the event that the pharmacist decides not to supply a medicine, the Pharmacy Voucher is coded for the consultation fee only. It is also envisaged that feedback from patients and health professionals providing and supporting such services will be central to evaluations.

Community Pharmacy Northern Ireland currently monitors the Master Price File compiled by the BSO which is used to make payments to Community Pharmacy contractors in Northern Ireland for drugs and appliances dispensed through the operation of the NHS.[43]

The system in Northern Ireland, which is predominantly paper based at present, limits site visits to examination of financial records on a three-year rota unless the aggregated summary statistics indicate outliers that require further examination.

Canada

MASs are being rolled out across Canada, and those in Saskatchewan and Alberta include an element of public funding for the scheme. Following identification of conditions, which it was deemed patients could reliably self-diagnose, a list of conditions and treatments was established. Access to the scheme is universal and, depending on the condition, patients can claim between two and eight consultations in a 365-day period. Activity and payment is achieved through the Drug Plan's online claimant system.

Summary

Question 2 addressed MAS governance structures. Governance was understood as the task of rule-making, judgement and administration. The following regulatory, surveillance and monitoring instruments were identified: national and local contracts, service level agreements, assurance frameworks, structured data collection forms, ICT database collection systems, on-site monitoring visits and data analysis processes. The governance standard-setting areas addressed in the contracts and agreements included physical structures, pharmacy capacity, pharmacists' competencies and adherence to clinical, financial and record-keeping standards. A key point identified in this review is how governance is increasingly being managed through the automation of procedural steps in ICT infrastructure databases and related components. Databases specifically designed for MAS-related data were identified: the eMAS (in Scotland), PharmOutcomes (in England), Choose Pharmacy (in Wales) and the Pharmaceutical Information Program (in Alberta and Saskatchewan, Canada). These allowed a structured and scheme-specific approach to collecting and processing data, increasing standards of governance and compliance. The MAS databases, especially those of Scotland and Wales, were designed to take account of the wider ICT infrastructure within which they are nested. These reflect a wider eHealth strategy for pharmaceutical care in developing pharmacy-based services and aim to allow for future integration and/or adaptation. The MASs were monitored through on-site visits and off-site data analysis; although we found that data on outcomes of these visits were not publicly available for reporting purposes. One important governance-related issue that we observed related to the issue of database funding. MAS databases are publicly funded in Canada, Scotland and Wales, whereas the most commonly used data system in England, PharmOutcomes, is privately funded. The funding source for ICT database collection systems has an impact on data protection, commercial sensitivity, data transfer and longer-term revisions of the system.

Question 3

Resources are used to deliver the schemes

What resources (training, funding, manpower time) are used to deliver the schemes?

In order to deliver the MAS, three resource requirement areas were identified: information and communications technology developments and associated installation requirements; training costs; awareness campaigns. Additional sub-components of these areas are identified in Figure 4.

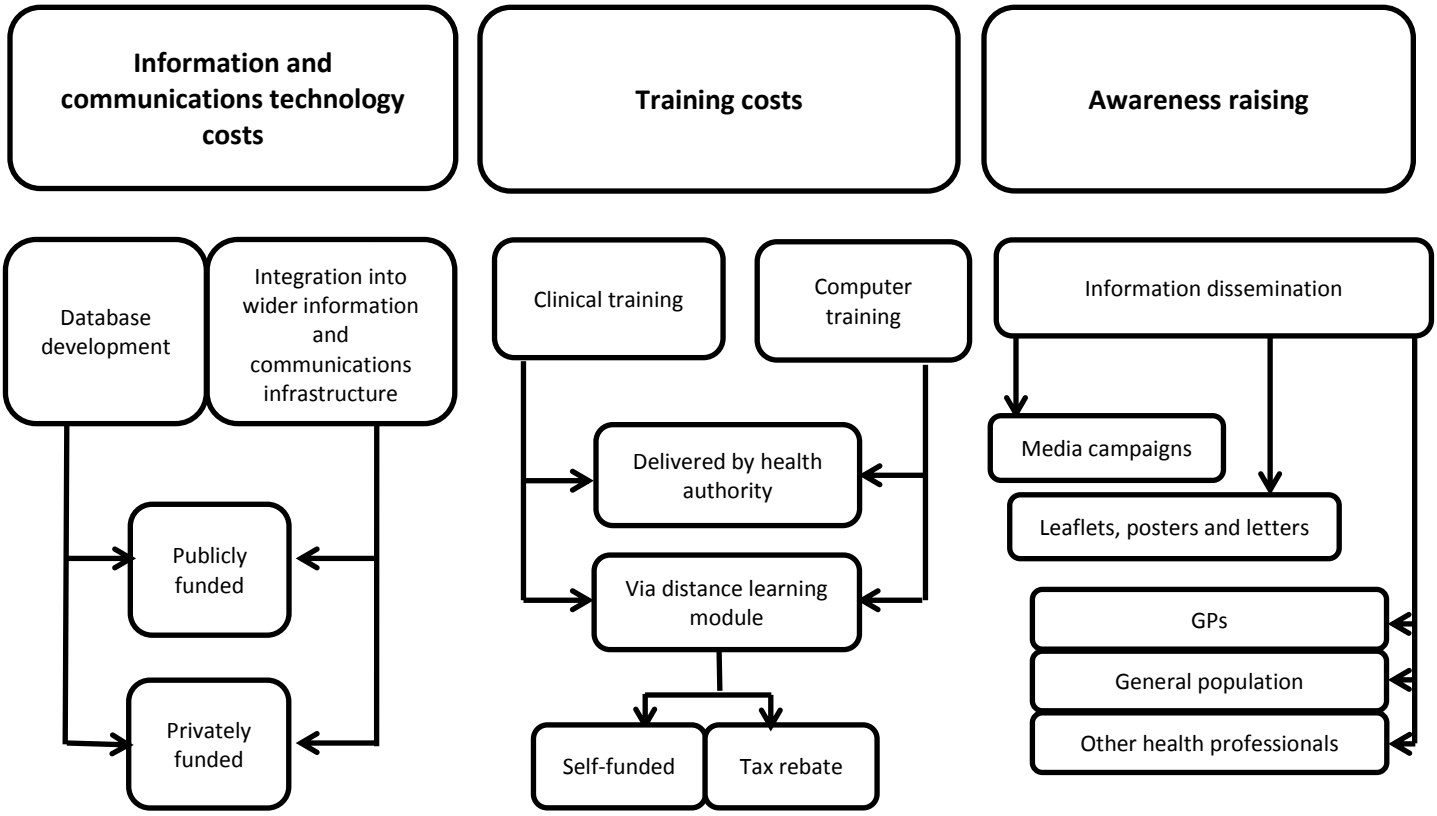


Figure 4 Minor ailments scheme resource requirements

Assessment of current service provision and communication networks would inform the required country-specific needs assessment for each identified area. Available details on costs relating to identified resource requirements used to deliver the schemes are reported in Table 7.

Summary

Question 3 addressed the area of resource requirements for MAS delivery. Reflecting the earlier findings of Questions 1 and 2, a brief schematic illustration of identified resource requirements is provided in the body of the review and encapsulates requirements under the broad headings of ICT (database design and wider health

system integration), training (for each area of governance), and awareness campaigns. Assessment of costing requirements for these areas was not possible for a number of reasons, including lack of reporting, the reporting of nominal rather than real costs when calculating software upgrading costs, and the reporting of nominal (actual) rather than real (adjusted for inflation) costs of providing pharmacist guidance, training and education specific to MASs. We observed these factors to be barriers to calculating real costs.

Question 4

Were there revisions to the schemes and, if so, why?

The establishment of the MAS pharmacy-based service requires integration of relevant work practices and the supporting administrative infrastructure into an established and functioning healthcare service. Ideally, public policy changes are trialled and evaluated before being rolled out nationally. Findings from countries which piloted the MAS, along with revisions to introduced MASs which may or may not have been piloted, are reported on here. Points of change in the establishment, roll-out and revision of schemes for jurisdictions in the UK are summarised in the figure at the end of the section. This is followed by a brief summary of MAS roll-out in Saskatchewan, Canada. An additional area of interest, but one not requested, is how the piloting of a MAS influences perception. Perception is an important determinant in the success, or not, of any policy. Therefore, this section concludes with a brief summary of reported stakeholders' perceptions, followed by what, if any, empirical data are available to support these opinions.

The MAS in Scotland

The Smoking, Health and Social Care (Scotland) Act 2005 enabled the introduction of a new Community Pharmacy Contract for Pharmaceutical Care Services (PCS), which allowed community pharmacists to further contribute to the government's priority areas for service provision, one of which is self-care. *The Right Medicine – A Strategy for Pharmaceutical Care in Scotland* (2002) made a commitment to introduce schemes between GPs and community pharmacists to allow patients to use their pharmacy as the first port of call for the treatment of common minor illnesses within the NHS. It also outlined plans to develop a new system of remuneration for Community Pharmacy contractors to provide incentives to modernise and deliver quality services.[47] The MAS constituted one of the four essential services within the (new) Community Pharmacy Contract (nCPC) to be provided by every community pharmacy in Scotland. The essential services list included:

- **Acute Medication Service (AMS)** provides patients with access to the pharmacy of their choice for the dispensing of acute prescriptions.
- **Chronic Medication Service (CMS)** allows patients with long-term conditions to register with a community pharmacy and have their medicines supplied, reviewed, adjusted and monitored over a 12-month period as part of a shared care arrangement between the patient, their GP and their pharmacist. However, this is not a guaranteed service provision.
- **Minor Ailments Service (MAS)** enables eligible people to register with a community pharmacy of their choice and have their common conditions treated by their community pharmacist (funded by the NHS) without the need to visit a GP.
- **Public Health Service (PHS)** engages community pharmacists in the task of health improvement for individuals and local communities.

In the period prior to the launch of the MAS, i.e. 2001–2002, a pilot project was established within NHS Ayrshire and Arran to develop a system to provide the necessary functionality for the Electronic Transfer of Prescriptions (ETP). Stage I of the pilot was completed in the latter part of 2002–2003, and provided valuable lessons to inform a wider Stage II roll-out. The 2002 strategy resulted in a broadening of the pilot's objectives to include the development of eApplications that would support the future delivery of the new Community Pharmacy Contract and improve communications across the healthcare team. To reflect the extended remit, the initiative

as a whole was rebranded as the ePharmacy Programme. Since then, further policy and service developments have resulted in changes to the ePharmacy Programme, making the ICT development arm an integral part of the wider NHS eHealth programme.

The evidence base for the MAS in Scotland

Supports for the provision of the MAS were extensively piloted and evaluated in Scotland over a five-year period, and the findings were used to inform the development of the service in the new MAS contract. In addition, the ETP piloting of the Direct Supply of Medicines (DSoM) was initiated in 2001. This enabled both advice on minor ailments, and products for their treatment, to be made available free of charge to exempt patients directly from community pharmacies, thus obviating the necessity for these patients to consult a GP. Individuals present with physical symptoms and the pharmacist diagnosed their ailment, prescribed treatment and supplied medication, where appropriate, the required product from a defined formulary. The evaluation demonstrated that the pilot was successful in providing an efficient and cost-effective way for community pharmacists to manage the treatment of common conditions.

The key findings from the pilot were as follows:

- favourable feedback from service users, particularly with regard to the convenience and time saved
- Head lice was the most frequent condition; the next most frequent conditions were pain and coughs.
- The majority of consultations were with patients who were exempt due to age – particularly those aged under 16 years; the next biggest category was patients aged over 60 years. Patients with income-related exemptions accounted for 19% of consultations.
- Community pharmacists managed consultations satisfactorily and coped well with the additional workload.
- GPs were supportive.

At the end of 2003 a wider roll-out of the initial pilot, addressing issues identified in the initial evaluation, took place. The issues identified were:

- making the formulary more responsive by including all Pharmacy (P) and General Sales List (GSL) medicines and some Prescription Only Medicines (POMs) via patient group directions (PGDs)
- top slicing the prescribing budget to allocate a dedicated budget for the service
- improving the remuneration structure by introducing a banded capitation fee.

In July 2006, the MAS was rolled out nationwide under a national contract available to people eligible to receive the service. No subsequent major changes to the service were observed. It should be noted that although people refer to a community pharmacy contract, there is, in fact, no formal contract; rather, there is a requirement to comply with various directives and regulations around the provision of various services to the pharmacy population in its wider sense, as this may not be merely limited to the population in the local catchment area. The registration forms are not retained at the pharmacy, but are submitted alongside the two-/four-weekly prescription submissions.

The MAS in England

In England, the Department of Health's publication, *Pharmacy in the future: implementing the NHS Plan*, 2000, recommended making more use of the skills and expertise of pharmacists. In April 2005 a new community

pharmacy contract, the **NHS Community Pharmacy Contractual Framework**, was introduced in England and Wales. This contract specified the nature of the pharmacy-based services to be supplied. Services were clustered into three distinct **service groups**:

- **Essential** (essential services delivered under a clinical governance framework which included clinical audit and information governance requirements, and which were to be provided by all NHS pharmacy contractors)
- **Advanced** (advanced services to be provided by all contractors once accreditation requirements were met and services were contracted for), and
- **Locally commissioned** (locally commissioned services contracted for with the Primary Care Trust (PCT), or clinical commissioning groups' response to an assessment of the health needs of the local population).[48]

In England, the MAS is a locally commissioned service, with the eligibility criteria determined by the commissioning authority. Nested within the wider package of pharmaceutical-based services, the scheme is subject to the standards set by the CPAF, although the framework per se does not specifically assess MASs. Additional requirements for locally commissioned services were published by the Department of Health and made permanent in the **Local Pharmaceutical Service contract in** 2006. Each **locally commissioned service** is commissioned using a separate contract. The key features of CPAF monitoring and surveillance and the requirements of the Local Pharmaceutical Service contracts are summarised in Annex 6.

Changes to the wider health service

The Health and Social Care Act 2012 made substantive changes to how health and social care needs are assessed in England. These changes do not impact on the national agreed structure of the MAS in England, but do impact on the population eligible to receive the service at a local level and the distribution of the service across the nation. Extensive discussion of this area is outside the remit of the review, but it is important to flag the enactment of the above Act as the local needs assessment process has been cited as an important determinant of MAS provision. Pharmacists have stated that the lack of ring-fenced funds for MAS provision has been a contributory factor in their reluctance to supply the service. The PSNC and the Department of Health are in discussion in relation to pharmacy services but how, or if, this will impact on MAS delivery is not known.

The MAS in Wales

Despite responsibility for NHS Wales being passed to the Welsh Government, following devolution in 1999, and since then being the responsibility of the Welsh Minister for Health and Social Services, the current NHS Community Pharmacy Contractual Framework (the Pharmacy Contract) was developed on an England and Wales basis and was introduced in Wales in April 2005. However, uptake of service delivery for the pharmacy-based MAS was low and the new 2009 Welsh Assembly Government, as part of a wider programme for government, committed to develop pharmacy services as an integral part of NHS Wales. In 2009, the Minister for Health and Social Services, Edwina Hart, commissioned a pharmacy service review, executed by the Task and Finish Group, to assess the implementation of the current community pharmacy contract commitments and to examine if community pharmacists could play a greater role in the delivery of high-quality healthcare. The Group concluded that the main barrier to progress had been*: 'The lack of a system to effectively implement pharmaceutical service policies within appropriate timescales'*.

The Group's main recommendation was to create such a system and to suggest a number of enhanced services – emergency hormonal contraception, smoking cessation, minor ailments and substance misuse – which would be standardised and delivered consistently across Wales as a national service.

In a subsequent review, the National Assembly for Wales Health and Social Care Committee in 2011 was tasked with examining the effectiveness of the Community Pharmacy contract in enhancing the contribution of community pharmacy to health and well-being services, including the extent to which local health boards have taken up the opportunities presented by the contract to extend pharmacy services through the provision of 'enhanced' services. In March 2013, the Minister of Health announced the Welsh Assembly Government's intention to introduce a national enhanced MAS, to be called Choose Pharmacy.

The roll-out of Choose Pharmacy followed a phased approach, incorporating evaluation into the process at each stage to help shape the national service. Roll-out began in October 2013 with the implementation of Pathfinder in Cwm Taf and Betsi Cadwaladr Local Health Board (LHB) areas. An interim evaluation of Choose Pharmacy, including the 32 pharmacies piloting the project, was published in January 2015. The final evaluation was published in July 2015. The evaluation process used the logic framework (see Table 7) submitted and agreed by the Welsh Government in March 2014.

Evaluation of Choose Pharmacy sought to consider four area of interest: inputs (to cost the scheme); activities, outcomes (at two time points, i.e. short, and medium), and impacts. A number of assumptions were made in calculating costs which are not necessarily transferrable outside the health service environment of Wales, and which even within this environment may need to be considered within a range of caveats not fully explored by the evaluation process. Nevertheless, the overall cost of establishing the scheme in its current format was determined as £565,300. The cost of upscaling coverage to extend delivery of Choose Pharmacy to the 700 plus pharmacies in Wales was not addressed.

Table 7 Choose Pharmacy logic model – inputs Wales

Areas examined in the evaluation process	Constituted parts of evaluated areas	Values assigned to constituted parts
Inputs	Programme-level costs (once-off and recurring). IT infrastructure. Staff costs. Remuneration cost to participating pharmacists. Local programme management costs. Additional cost (once-off and recurring) to participating pharmacies associated with the service (e.g. staff training, infrastructure).	Fixed costs: The cost of: • paying pharmacists to deliver the service £2,340 for pharmacies with 1–200 registrations; £3,040 for pharmacists with 201–300 registrations; £3,740 for pharmacists with 301–400 registrations; and £7 per patient for pharmacists with 401+ registrations. • to cover their establishment, once off payment of £660 for taking part in the pilot programme training costs and a one-off payment of £60,000 to the LHBs for facilitator costs/local engagement (per Pathfinder) • setting up and maintaining the eCAS system for the programme, which is managed by NHS Wales Information Service (NWIS) £300,000, paid to NWIS at the beginning of the programme and an additional £1,000 payment to each pharmacy to set up the system; • managing the programme within the Pathfinder sites
		Variable costs: dependent on the number of appointments which take place, and the number of prescription items dispensed
	Cost associated with communications/raising awareness	Uncosted
	In-kind cost – e.g. time given by professionals to support the management and delivery of the service	Costs to the health service – costs of providing the pharmacist appointment costed at £5 and the cost of the prescribed item – as per Drug Tariff costs
	Patient time	Costs to individuals – people's time (individual's time is costed at £10 per hour); travelling time and waiting time (6 to 8 minutes) opportunity cost
		Aggregating the fixed and variable costs provides the total cost of the programme in the first 14 months of implementation. As follows: Health Service: £559,400 Service users: £5,900 Total: £565,300

The MAS in Northern Ireland

Following the introduction of the new community pharmacy contract arrangements in England, the MAS was introduced in Northern Ireland in 2005. Initially, pharmaceutical advice and treatment for coughs, colds and hay fever was provided under the scheme for patients who were exempt from prescription charges, and the Northern Ireland Drug Tariff was based on the Scottish Drug Tariff.

A judicial review ruling reported that the effect of the new contract arrangements would be to 'reduce the prices for generic drugs in Category M' and it was argued that the introduction of the new arrangements was problematic for Northern Ireland pharmacists, and had left many facing financial hardship: 'In Scotland, the prices included in the Drug Tariff were based on information available in respect of wholesale prices and volumes within that jurisdiction. In light of the pre-existing arrangement in relation to the use of the Scottish Drug Tariff, the Department [DHSSPS] continued to remunerate pharmacists on the basis of the revised Scottish Drug Tariff while recognising that this model was not suitable for Northern Ireland and resulted in considerable losses to pharmacists in this jurisdiction.'[49]

Between the time the scheme was introduced and 2008 more than 200,000 individuals availed of a service in 518 pharmacies across Northern Ireland.[50] In July 2008, Northern Ireland's Department of Health, Social Services and Public Safety (DHSSPS) wrote to pharmacists seeking to amend the MAS. The changes included a cap on the number of transitions and enhancing the service to include treatments for head lice, diarrhoea, Dhobie itch, athlete's foot, vaginal thrush and threadworms.[51] However, an agreement on terms could not be reached, and 97% of pharmacists who provided the scheme withdrew their services, with effect from 1 August 2008.[52]

The Minister of Health, Michael McGimpsey, revisited the scheme in November 2008[50] and a new MAS was introduced in January 2009.[52] The service allowed patients in receipt of free prescriptions to access treatment for the following conditions: coughs and colds, hay fever, head lice, athlete's foot, threadworms, vaginal thrush, diarrhoea, and Dhobie itch. From 1 November 2010, the service did not apply to coughs, colds, sore throats and nasal symptoms.[53]

On 1 April 2011, the Department introduced an amended Drug Tariff in order to provide fair and reasonable remuneration, and to increase transparency in the payment system for community pharmacists.[54]

Milestones in the development of the MAS in the four UK jurisdictions are summarised in Figure 5.

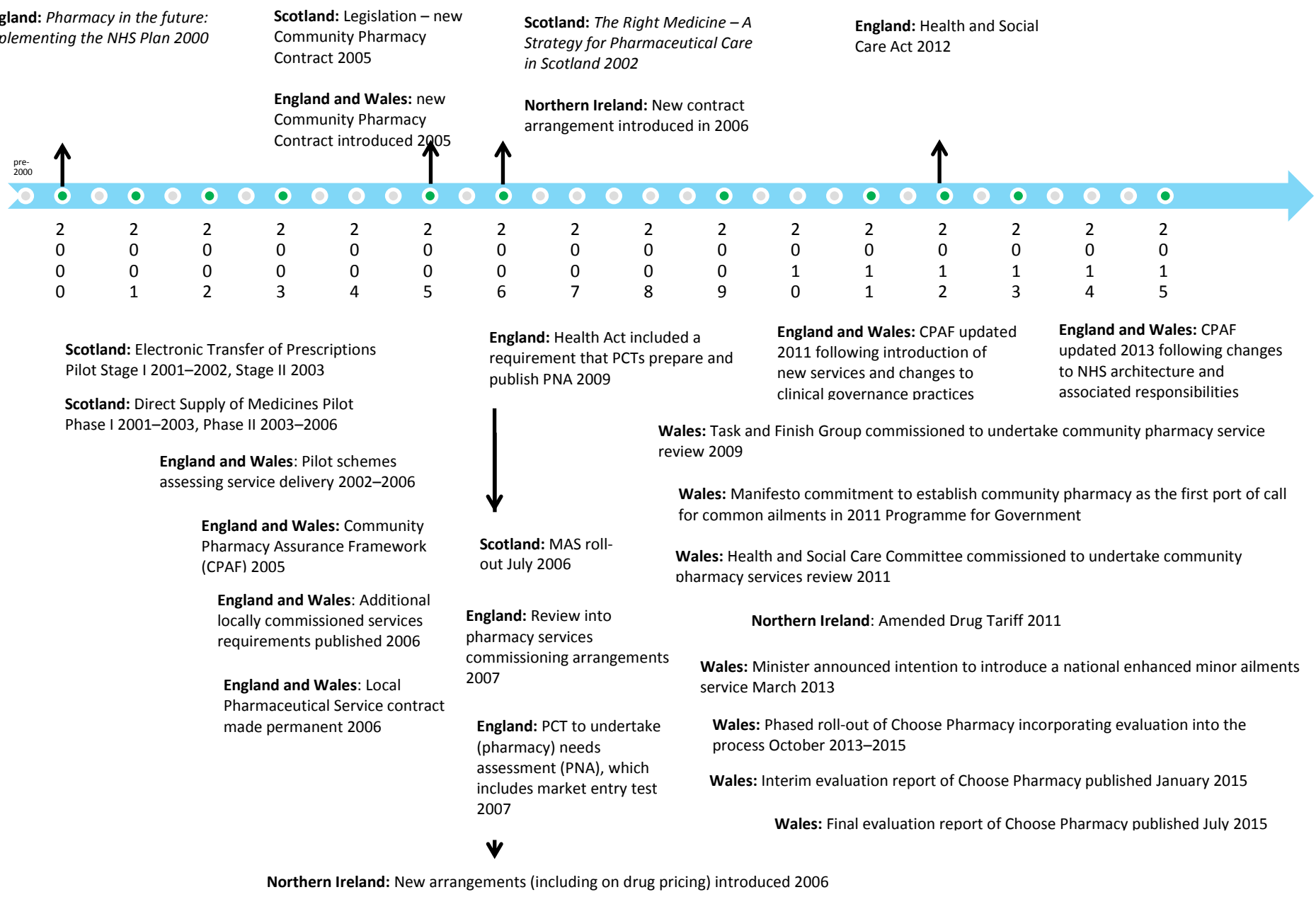


Figure 5 **Milestones in the development of the minor ailments scheme across the four jurisdictions of the United Kingdom**

The MAS in Canada
Saskatchewan

On 3 March 2010 the Saskatchewan Minister of Health announced his intention to approve regulations and by-laws expanding the authority allowing pharmacists to prescribe emergency contraception (effected on 1 September 2003) to other drugs. As a result of the changes, Level 1 of enhanced prescribing authority for pharmacists includes the provision for pharmacists to prescribe Schedule 1 drugs for the treatment of minor, self-limiting and self-diagnosed ailments such as rashes, cold sores and hay fever.

Developing the Minor Ailments Guidelines

The Saskatchewan Drug Information Service was contracted by the Saskatchewan College of Pharmacists to prepare the Minor Ailments Guidelines. Between 2003 and 2010 stakeholders from various groups involved in drug management (e.g. physicians, nurses, dentists, pharmacists, etc.) were involved in the Advisory Working Group which developed the policies for pharmacist prescribing.

The first step was to review the literature and consult with other Canadian pharmacy organisations. From this information, a list of conditions that could potentially qualify as minor ailments, and a list of prescription drugs that might be suitable for patient self-care of these conditions, was compiled. The next step was consultation with Saskatchewan community pharmacists through nominal group meetings; the first, in Saskatoon, on 5 January 2010 and the second, in Regina, on 12 January 2010. The groups were asked to:

- select criteria to define minor ailments and prescription drugs appropriate for pharmacists to prescribe for these conditions, and
- apply these criteria to select specific conditions and drugs to be included in the Saskatchewan minor ailments programme.

The results from the group meetings are summarised below.

Criteria for minor ailment conditions: can be reliably self-diagnosed by patient; It is a self (time)-limiting condition; laboratory tests are not required for diagnosis; treatment will not mask underlying conditions; medical and medication histories can reliably differentiate more serious conditions, and only minimal or short-term follow-up is needed.

Criteria for prescription drugs suitable for pharmacists prescribing for patients' minor ailments require that there is: official indication for the self-care condition – that is the condition is eligibility for self-care; valid evidence of efficacy for the self-care condition; a wide safety margin; not subject to abuse; the dosage regimen for treatment of self-care conditions is not complicated.

Using these criteria, the conditions and Schedule I drugs were considered appropriate for the Minor Ailments Program. The Saskatchewan College of Pharmacists Council approved these policies and drafted the regulations and by-laws for ministerial approval.

Minor ailments prescribing is covered for all residents of Saskatchewan and includes federal beneficiaries (aboriginal peoples, etc.). The Patient Assessment Fee is 100% covered by the Drug Plan and Extended Benefits Branch for residents with a valid Saskatchewan Health Services Card. Billing thresholds and limitations differ according to medical condition. Broadly speaking, these vary from two to eight claims in a 365-day period per patient. The following criteria must be met before payment for the Patient Assessment Fee (PAF) will be

adjudicated through the Drug Plan's online claims system, and in order to reconcile the claim for the PAF to the minor ailments prescribing activity:

- The prescription medication must be listed in the *Guidelines for Minor Ailments Prescribing*.
- The prescription (or the drug claim for the medication prescribed for a minor ailment) must be submitted first (i.e. before the PAF claim is submitted).
- The Patient Assessment Fee (PAF) must be submitted on the same day as the drug claim or record.
- The prescriber in the PAF must match the prescriber submitted for the drug claim or record.

Minor ailments prescribing in Saskatchewan is a Level I Prescriptive Authority service. The prescribed drug must be:

- listed in minor ailments guidelines[55] and
- have an approved indication for the patient's self-diagnosed condition.

The pharmacist is required to record the prescription with the Pharmaceutical Information Program[56] and to notify the patient's physician of the prescription. Physician or other practitioner authorisation is required for repeat or maintenance therapy.

Training requirements:
All pharmacists are now required to take Prescriptive Authority for Pharmacists – Level I Training Basics and Prescriptive Authority for Pharmacists Minor Ailments – prior to licensing. Therefore, any newly licensed pharmacists will have minor ailments prescribing authority. Only pharmacists who complete this Level 1 prescriptive authority training by Continuing Professional Development for Pharmacists (CPDP) are able to prescribe for minor ailments services.

The Pharmacists' Association of Saskatchewan (PAS) and the Drug Plan and Extended Benefits Branch (DPEBB) have agreed a Patient Assessment Fee of $18 where an assessment results in a pharmacist prescribing an eligible prescription medication according to the medSask guidelines.[56]

Minor ailment-related care in other Canadian provinces

Alberta

Alberta pharmacists who obtain Additional Prescribing Authorization (APA) may prescribe Schedule 1 drugs within the scope of their specialty.[57] Alberta does not have a designated MAS; however, pharmacists with APA are reimbursed $25 for prescribing at initial access, or to manage ongoing therapy, and all other pharmacists are paid $20 to prescribe in an emergency.

Activities reported on the Welsh Choose Pharmacy pilot scheme

Pharmacists and practitioners' views on Choose Pharmacy service users profile and ailments treated in Wales
The 2013 to 2015 pilot Choose Pharmacy in Wales offers the most recent evaluation of MASs identified in the course of this review. Statements on the range of activities examined in the evaluation are summarised in Table 8.

Table 8 Activities reported on in the Welsh Choose Pharmacy pilot scheme

Activities	Registration of patients
	Consultation with patients
	Provision of advice, and where necessary, treatment
	Development of referrals from and to other healthcare providers to the service
	Promotion and marketing of the service
	Training
	Reviewing formulary
Short-term outcomes	Improved public awareness of primary care services for minor ailments
	Improved access to advice on, and treatment for, minor ailments
	Improved patient satisfaction
	Improved inter-professional relationships
	Extended roles for pharmacists
Medium-term outcomes	Appropriate use of pharmacy, GP and other healthcare services
	Improvements in health literacy
	Increased self-management of minor ailments
	Improved integration of healthcare services for common minor ailments
	Maintained or improved quality of care
	Improved job satisfaction
Impact	Pharmacy is the first port of call for advice and treatment for minor ailments
	Savings and better use of resources
	Increased resilience of healthcare system
	Reduced health inequalities/unmet needs

In the main, evaluation of activities reflects the findings from qualitative interviews to assess the acceptability of MAS by the stakeholders (pharmacists and general practice staff). While some empirical data were reported, the main areas addressed were the recounted perceptions of a range of individuals. The reported perceptions and points for consideration in deliberating on these presentations are set out below.

Reported perceptions on pharmacy activity
Over the evaluation period, demand for the service rose; the number of services provided in each pharmacy varied, but increased with time; pharmacist capacity to, and confidence in, service delivery continued to grow, with a reported downward curve in the average consolation time.

Pharmacy activity – empirical data
There was little qualitative analysis of changes in service demand or provision. With regard to time requirements to deliver the MAS, the reported average consultation time of less than three minutes represented time from log in to log out on the Choose Pharmacy application. Anecdotally, pharmacists themselves reported a consultation time of over 10 minutes. This represented more than a threefold increase from the official summary measure statistics. (As an aside, the reported times required to undertake a consultation in Canada were in the region of 20 minutes.)

Reported perceptions on GP engagement and referral pathways
GP practices continued to vary in their levels of engagement; GP referrals remain low, and inappropriate referrals continued. While increased interaction between pharmacy and general practice staff was reported, the majority of stakeholders considered that training for GPs, practice managers and receptionists was required in order to improve awareness and understanding of the service – and that such training should be incorporated into plans to roll out the service. Referral routes into the service, other the referral from the general practice, were more common.

GP engagement and referral pathways – empirical data
There was little qualitative analysis of referral trends, or comparison with baseline practices. However, the perceived increase in pharmacist-GP interaction represented an intangible positive perception of this relationship, which may be of value in its own right.

Reported profile of service users and most common ailments treated
Parents (most commonly mothers) were the highest users of the service – seeking advice and treatment for children's common ailments, but geographical variations were noted for other population characteristics.
The top five most common ailments accounted for 68% (1,405) of consultations, with hay fever accounting for 24% (507) of all consultations, and hay fever, conjunctivitis and head lice accounting for the top three presenting conditions. A small increased 2.5 percentage points in repeat attendances for the same (60%) or a different (40%) ailment was noted in the last six months of the evaluation.

Profile of service users and most common ailments treated – empirical data
The profile of service users and conditions treated represents one of the few areas of service provision that was elaborated upon. It provided an important insight into the priority areas – as defined by use – of the service. However, these observation data do not address the issue of whether service use represented a shift in service delivery location or whether service provision reflects new created demand. Further analysis is required in order to evaluate the impact of Choose Pharmacy schemes.

Reported perceptions on patient awareness, understanding and engagement
Stakeholders believed that the majority of patients held positive views about the service, and had become aware of the service through their GP. However, overall awareness of the service was still low and there were misunderstandings about the service

Patient awareness, understanding and engagement – empirical data
Much of the reporting on this area was speculative. The impact of bias on service uptake or reported satisfaction levels was not assessed.

Reported perceptions on drivers of patient engagement
Improved access was identified by pharmacists and GP practices as the key driver for patients seeking a consultation at the pharmacy. However, all stakeholders highlighted that pharmacy capacity to deliver a consistent service affects accessibility – which in turn influences patient and GP perceptions of Choose Pharmacy. It was reported that reduced capacity during busy dispensing periods, or when unaccredited locums are providing cover, prevents the pharmacy from offering timely consultations.

Drivers for patient engagement – empirical data
Issues of access, such as geographical spread and opening hours, were not implicitly discussed when seeking to evaluate access.

Reported perceptions on barriers to patient engagement
Preference to see a GP and perceived severity of the condition were identified as the key barriers to patient engagement by both pharmacists and GP practices. It was also considered that restrictions associated with the formulary could decrease the likelihood of patients using the service. Consulted GPs and pharmacists continued to highlight the importance of behavioural change, noting the preference of significant cohorts of patients to see the GP for advice and treatment for common ailments. Changing the behaviour of these patients was considered to be particularly challenging.

Barriers to patient engagement – empirical data
Differences between behavioural changes arising from the receipt of information (i.e. awareness that the Choose Pharmacy scheme is available) and resistance to change arising from preferences (i.e. preferring to attend general practice) were not explored when assessing barriers to patient engagement.

Reported perceptions on stakeholder perceptions of the outcomes delivered
While stakeholders considered that the delivery of the service had yet to make an impact at scale, many considered that Pathfinder had delivered positive outcomes. Stakeholders, mainly pharmacists, reported that:

- Being involved had increased their job satisfaction.
- The scheme provided patients with better access to advice and treatment for common ailments services.
- Patients welcomed the ease of access to the service.
- Partnership working and relationships between GPs and pharmacists are being strengthened, albeit to varying degrees across the different localities.
- Service helped to increase public understanding of support available at the pharmacy and had improved patients' trust in and awareness of care provided by pharmacists.
- had led to more appropriate use of the pharmacy, GP and other healthcare services for common ailments.

Stakeholder perceptions of the outcomes delivered – empirical data
Apart from the ability to assess an increase in one's own personal level of job satisfaction, the remaining areas reported on in this section are based on perception, and are not substantiated with evidence.

Summary
Question 4 addressed assessment of revisions to the scheme. In practice, revisions were not common features of scheme delivery. Scotland rolled out a national process of MAS delivery by first extensively piloting the MAS over a five-year period, especially the computerised modules of scheme delivery (the electronic transfer of prescriptions and the direct supply of medicines). The scheme appears to have experienced little change since its introduction nationwide in 2006. England, by customising and prioritising MAS delivery in response to local health need requirements, was in theory eligible to change the MAS scope with each new local MAS pharmacy contract. Changes to the NHS architecture following the Health and Social Care Act 2012 further extended the local assessment process to include social care needs, and introduced a wider basket of services for prioritising and funding. However, a dearth of data prohibited empirical time series evaluation of actual changes. The situation in Wales is a hybrid of Scotland and England. In the first instance, Wales exhibited a fragmented MAS service delivery, thus mirroring conditions in England. However, the 2011 manifesto for government promised to expand community pharmacy services and to run a pilot MAS scheme from early 2013 to mid-2015. Development of the pilot scheme was informed by the previous Scottish experiences of delivering other pharmacy-based projects and by the Scottish expertise. The evaluation of the two Pathfinder sites in Wales was

positive and the report identified a number of issues to consider/address prior to roll-out. Whether these issues will prevent or only delay national roll-out is, as the time of writing (November 2015), to be determined. Only Northern Ireland appeared to experience revisions to its MAS scheme, and not simply to its mode of delivery. Starting in 2005 with an initial three conditions (coughs, colds and hay fever) the scheme was available to all individuals exempt from prescription charges. However, the initial costing model and drug repayment fees, based on data available from Scotland coupled with amendments to the scheme sought by the Northern Ireland Department of Health, posed difficulties for pharmacists. The service was withdrawn in 2008, but negotiations regarding payment, the list of conditions to be included, and eligibility to participate in the scheme resulted in the reintroduction of the scheme in November 2010. A universal service for a wider range of conditions was made available for all those aged over three months.

Question 5

What are the costs and benefits of minor ailments schemes, both tangible and intangible, to the patient, the pharmacist, the GP and the rest of the health system?

Pharmacy Research UK (2014) undertook a systematic review of the evidence base for MASs operated in the UK and included 26 studies (reported in 31 evaluations) in its final report. Pharmacy Research UK found that: 'No study included a full economic evaluation.' It also stated that evidence from economic evaluations was needed to inform future delivery of pharmacy-based minor ailments schemes. MASs have the capacity to empower and enhance pharmacists,[58] free up doctors' time[59] and keep emergency rooms for those who really need them.[60] Such a scheme also has the capacity to ensure that a timely[61] and accessible[61] service is provided to all sections of the community. Despite the aforementioned potential benefits, all policy changes need to be evaluated in order to determine economic value and level of efficiency. The paucity of evidence on economic justification is such that what can be undertaken is a view of the costs which may be incurred and the potential benefits which may accrue for each of the stakeholders (patient, pharmacy and GP).

Costs

The tangible financial costs to the state of a MAS identified in the Welsh literature are as follows: the pharmacist's start-up payment or establishment costs; pharmacist's fee or per capita allocation for each registered patient; the costs of the medication dispensed; the cost of training pharmacists; the costs of developing and updating a formulary and protocol; the design and running costs of a computer-based information collection system; the salaries of state administrators and supervisors, and the costs of supporting pharmacists. Negotiation costs for the national pharmacy contract and the GPs' contract would also need to be estimated. Fees for inter-disciplinary collaboration, such as phone or e-mail consultations initiated by the pharmacist, are paid in Canada but not in other countries.

The literature[59, 61-63] indicates that tangible costs vary, depending on the fee or *per capita* allocation negotiated with the pharmacists, the number of medical conditions the pharmacist is permitted to treat, the type of medication the pharmacist can dispense through the scheme (generic or proprietary) and the target population (considering age, gender, and socio-economic status) eligible for the scheme.

In England, there are 76 different MASs and most of these differ from each other with respect to target population, conditions treated and medicines dispensed; therefore, comparing the costs between schemes is not valid. In addition, where there is a fee per registration, the fee varies in different local areas of the UK. However, the total state cost for the pilot scheme in 32 of the 700 pharmacies in Wales in the first year was £565,300, which was an average of £17,666 per pharmacy. The fee per pharmacy consultation in 2015 in England was £5.50.

Between April 2014 and March 2015, the Scottish MAS cost £5 million and over two million items were dispensed under the Scottish MAS.[64] The MAS accounted for 2.2% of all items dispensed by community pharmacies in Scotland. Paracetamol was the top item dispensed by community pharmacies in Scotland; it was also the most frequently prescribed MAS item, representing 21.4% of all MAS items. In Scotland, it should be noted that pharmacies are paid the cost price/tariff price, as opposed to the retail price, of a medicine. However, a capitation grant/registration fee is also payable from the agreed global sum for services. This ensures that the margins are acceptable to all stakeholders. Indeed, such products may be subject to discounting through the generic and/or proprietary discount schemes operated by the Sottish Government in association with the Community Pharmacy Service.

Many pharmacists deal with minor ailments all the time and have always done so. The difference between this practice and an official MAS is that it is run by the government, there is a payment for the service, and

its execution has to be codified. The issue of cost in monetary terms is difficult to estimate. The charge paid to a pharmacist is thought to be a saving on the GP's fee at this juncture, but as pharmacists are commercial enterprises that sell goods other than medicines, the issue of supplier-led demand is more difficult to avoid for pharmacists than it is for doctors. Pharmacists gain from a MAS by receiving a fee or per capita grant for each patient with a minor ailment, by increasing the number of regular customers, and by increasing the sales of other goods. Pharmacy representatives are promoting the idea with government to secure responsibility for minor ailments, and are increasing consultations and sales by making their services very visible to the public.[65] The question is whether any overall gain can be achieved, and once up and running, will costs escalate in an unsustainable manner to the potential benefit of one of the three main stakeholders, i.e. pharmacists?

Benefits

There are, of course, many potential benefits to MASs. Doctors claim to be overworked and the introduction of universal primary care will put further pressure on GP practices. So, taking the colds, rashes and head lice out of the GP's workload and into a pharmacist, who is already more than qualified to deal with such matters, makes a lot of sense. The South Manchester Clinical Commissioning Group[66] identified the following potential benefits, which include:

- reduced attendance at emergency departments
- reduced attendance in GP practices and thus increased capacity to see patients at general practice level
- provided quality care, with resolution of minor ailments and low re-consultation rates
- promoted a more effective use of the pharmacist's knowledge, skills and training
- increased patient access and choice in primary care and promoted self-care by empowering patients to be more confident in their choices
- supported equity of access
- improved access to consultations, advice and medicines for common clinical conditions
- reduced inequalities in some 'hard to reach' groups
- allowed the transfer of care from GPs and nurses to pharmacists, where appropriate.

In England, in the period 2006–2007, 57 million consultations with GPs involved minor ailments.[59] The cost of this is estimated at £2 billion per annum or an individual cost of £35 per patient/visit. It is important to note that there are numerous estimates of the number of consultations with GPs, as well as a variety of estimates of what proportion of these consultations constitutes a minor ailment.[67] At the same time, the skills of pharmacists were underused and doctors' time was diverted from the care needs of patients with more serious conditions. A MAS in the North of Tyne area in the UK paid pharmacists £3.40 per consultation. "In 2011, a study by Baqir et al showed that great savings were made despite the fact that many patients who could have self-medicated availed of a consultation. Therefore, Baqir states that the proportion of difference between the consultation fee for the pharmacist and the fee for the GP makes the proposal for a MAS viable. If the differential were to be eroded over time, the scheme could become unsustainable. In addition, transaction costs (administration and other costs) are highlighted in the Welsh evaluation, but not in Baqir's evaluation. However, based on the Welsh experience, these are significant and could also include uncounted hours of extra work for the pharmacist.

The Australian Self Medication Industry (ASMI)[68] estimates that 25 million minor ailment consultations are carried out by GPs in Australia annually; the time investment required for these consultations equates to the involvement of 1,000 full-time GPs who could instead be available to treat more serious conditions. The ASMI concludes that it represents AUD 260 million in misallocated resources.

With a significant transfer of minor ailments from the GP to the pharmacist, one could be expected to see a change in the GP's workload, but Hassell *et al.*[69] found evidence to suggest that this does not occur. A

subsequent study by the NHS also suggested that the introduction of such schemes had no effect on the number of GP consultations, but actually decreased the number of consultations for minor ailments.[61] In a 2011 study, Paudyal reported that the total number of consultations and prescribing for minor ailments at general practices often declined following the introduction of a community pharmacy MAS.[70]

Economic evaluation

The 2014 Pharmacy Research UK study noted that in a systematic review of 26 studies into MASs: 'no study included a full economic evaluation'. It also reported that the mean cost per pharmacy MAS consultation ranged from £1.44 to £15.90, which suggests that the £3.40 consultation fee noted in the Baqir[59] study cannot be taken as an average, and we can expect that there will be more variation, with a likely increase in consultation fees over time. In particular, the authors stated: *'In 2002, a review was published of community pharmacy NHS minor ailments schemes,[7] but, since then, (January 2014) there has been no systematic collation of the evidence of effectiveness or cost-effectiveness of these schemes, despite increasing numbers of services being provided throughout England as well as the introduction of the national service in Scotland (eMAS).'*[62]

Market entry

In NHS England, market entry for pharmacies is controlled. Access for most of the population is not an issue as 99% of people – even those living in the most deprived areas – can get to a pharmacy within 20 minutes by car and 96% can access a pharmacy by walking or by using public transport.[71] 'Control of entry' is used to influence the geographical spread of pharmacies. Up to 2008, control of entry was formerly applied on the basis of being 'necessary and desirable', but this was subsequently changed to a 'market entry' test where applications are assessed against needs/improvements or better access requirements identified in the Pharmaceutical Needs Assessments (PNAs). These changes came about as a result of a review and White Paper in 2007. The Pharmaceutical Needs Assessment is produced by the local authority's Health and Wellbeing Board at least every four years, in order to identify the pharmaceutical services that are needed, those that are provided, and consequently those that are needed but are not currently provided. Pharmacies that wish to be included in a the NHS pharmaceutical list apply to their local authority.[72]

The patient

Convenience, access and timeliness for the patient may be considered the principal driving forces in making the choice to attend a pharmacy rather than a general practice.[61] If the patient makes this choice in the first instance, and if the outcome is perceived as a success, their confidence in the pharmacist will grow; this is particularly likely in the case of mothers of young children with conditions such as head lice or pyrexia (high temperature). The pharmacist carries a full range of medicines, which can be dispensed at the time of the patient consultation, thus further increasing the patient's level of convenience. These potential benefits are dependent on easy access to the pharmacy. Buxton[73] highlights that in order to create the requisite conditions, potential patients attending a pharmacy consultation needed to be made aware of what is available and to manage expectations. For example, those who had built up trust in the pharmacist had confidence that the pharmacist would refer the patient to a GP if their medical condition warranted it. Where patients found that the pharmacy service did not resolve the problem, and they subsequently returned to the GP, it was important that the GP had a positive attitude to the pharmacy-based MAS. Pharmacy Research UK[62] reported that patient decision-making for healthcare in marginalised communities is dependent on access and convenience. The preferred location for a pharmacy is in a local shopping centre shopping centre or near a GP surgery where there is car parking. Rennie *et al.*[74] reported that there is evidence of how preferences change when managing different symptoms of varying perceived severity, such as diarrhoea, back pain or rectal bleeding. Using a discrete choice experiment, 480 respondents were presented with hypothetical choice sets described in terms of attributes and associated levels. Respondents could choose between self-care or a consultation with a pharmacy, a practice nurse, NHS Direct (phone), a

complementary therapist or a GP. For more severe symptoms, respondents preferred to consult a GP. While most patients preferred self-care for minor illnesses and GP care for more severe symptoms, reduced waiting times were preferred for out-of-hours services. In addition, 'willingness to pay' values for pharmacist consultations were improved by pharmacists and trained assistants who were friendly and approachable and who asked questions about the patient's symptoms.

The pharmacist

The potential benefits for pharmacists of participating in a MAS are clear. They get more business through their doors and the profession can enhance its status by moving into territory hitherto occupied by GPs.[58] While protocols/algorithms can identify whether symptoms and conditions are minor ailments, the lack of consensus among health professionals themselves on what constitutes a condition suitable to be treated by a pharmacist, and the potential suitability of a community pharmacy setting, must surely lead to uncertainty among the public/prospective users of the service.[60] Pharmacy Research UK[62] states that a coordinated accord between the professionals involved and a clear demarcation of where one service ends and another begins, together with additional training for pharmacists and their staff, would be required in order to make a scheme work. A study by Inch *et al*.[75] into how common minor ailments are managed in community pharmacies concluded that whereas the majority of simulated patient visits for the management of minor ailments were associated with positive perceptions of general professionalism and overall satisfaction, gaps in information gathering and advice provision were identified and these need to be addressed.

The general practitioner

A study carried out in the NHS suggested that the introduction of such schemes had no effect on the number of GP consultations, but decreased the number of consultations for minor ailments.[61] Additionally, in a 2011 study, Paudyal reported that the total number of consultations and prescribing for minor ailments at general practices often declined following the introduction of pharmacy MAS.[70] Up to 18% of general practice workload is estimated to relate to minor ailments, at a cost of £2 billion annually to the NHS in the UK.[60, 76, 77] Fielding and colleagues[60] reported that many people with minor ailments prefer, and are capable of, self-care, but a significant number of patients with minor ailments present at GP practices or at hospital emergency departments (EDs) and this number has grown substantially in recent years. Therefore, one of the motivations for MASs is to free up doctors' time to deal with more serious cases. Minor ailments are defined as 'common or self-limiting or uncomplicated conditions which can be diagnosed and managed without medical intervention.'[63] However, researchers have found that GPs and ED doctors demonstrate great variation in what they consider to be 'minor'.[60, 62] This may inhibit GPs in particular to commit themselves to a scheme, although it would be clearly in doctors' interest to divert minor cases away from the GP practice if there was no perceived financial penalty for doing so. In Canada, financial incentives have been put in place to encourage interdisciplinary collaboration.[78] Physicians are paid a schedule of fees for phone or e-mail consultations initiated by the pharmacist.[78]

While the Irish Pharmacy Union is in favour of the introduction of a pharmacy-based MAS to allow its members to treat customers directly, thus obviating the necessity of visiting a doctor, the Irish Medical Organisation[79] is currently opposed to the introduction of such a scheme. Some doctors claim that pharmacy premises are not the appropriate setting for patient interaction and that pharmacists may treat a minor ailment that may mask a more serious underlying condition. Other doctors state that there are *'significant financial and other obstacles to be overcome'* before doctors could agree to such a scheme.[79]

Intangible benefits

Much discussion on the introduction of MASs focuses on the potential for cost savings. The proposed rationale is that if patients could be encouraged to attend a pharmacist rather that a high-cost setting for consultations about minor ailments, then there would be a financial saving; in addition, GP surgeries and hospital A&E departments could be freed up to give greater attention to more serious cases. Bojkea *et al*.[61] showed that the total number of GP consultations was unaffected by the introduction of such a scheme. However, one intangible potential benefit of a greater number of medical consultations carried out in the community is that it may have a positive impact on public health,[61] due to a greater number of people engaging with health professionals, becoming better informed, and better able to self-treat.

Summary

Question 5 explores the costs and benefits of a MAS, based on existing research and information. Policy changes need to be evaluated, in order to determine if they will be of economic value. Research UK published a systematic review in 2014, including 36 evaluations, and concluded that no MAS study completed a full economic evaluation detailing costs and benefits. With a paucity of evidence on economic justification, we can describe the costs that may be incurred and the potential benefits that may accrue to stakeholders. The financial costs identified in the literature include the pharmacist's establishment or start up costs and their fee or per capita allocation fee for each registered patient, together with the costs of medications dispensed. Others include the cost of training pharmacists, the cost of developing and updating a formulary and protocol, as well as the design and running costs of a computer-based information collection system. The literature also indicates that the costs of state administrators supporting pharmacists and the cost of negotiating nationally with pharmacists and GPs need to be estimated. Tangible costs may vary, depending on the number of medical conditions the pharmacist is permitted to treat and the type of medication that can be dispensed through the scheme. With the transfer of certain work from GPs to pharmacists, some of the literature reviewed expected to see a change in the GP's workload; however, subsequent experience reported in the literature suggests that this does not occur. Studies indicate that the overall number of consultations by GPs does not change, but fewer minor ailment consultations take place. The change in enablers of and barriers to MAS GP consultations is difficult to be definitive about because there is little agreement on the optimal number of GP consultations that take place annually. The literature reviewed indicated that in some studies MAS attendances are reduced in GP practices, and therefore increased GPs' capacity to see patients with more serious conditions, and provide quality care. There is no definitive evidence of reduced attendances at emergency departments. The literature indicates that the MAS may promote a more effective use of pharmacists' knowledge, skills and training, and should increase patient access and choice in primary care, but there is no tangible proof of these outcomes. In addition, the MAS (according to the literature) would promote self-care by empowering patients to be more confident in their choices. In the literature, the expected patient benefits are convenience, access and timeliness, as well as reduced costs, but once again these are not proven outcomes. The expected benefit to pharmacists would be greater volumes of business and an enhanced professional profile. Researchers have found that GPs and ED doctors demonstrate some variation on what they consider to be 'minor'. This may inhibit GPs' commitment to MAS although it would be in doctors' interest to divert minor cases away from the GP practice if there was no perceived financial penalty for doing so. In addition, GPs report that families who present regularly with minor complaints maintain an ongoing relationship with the doctor and the practice. However, it should be noted that many pharmacists deal with minor ailments all the time and have always done so. The difference between this practice and an official scheme is that an official scheme is run by a government body; in addition, there is a payment for the service provided, and its execution has to be codified.

Question 6

What are the enablers of and barriers to minor ailments schemes for the patient, the pharmacist, the GP and the rest of the health system?

This section summarises potential enablers of and barriers to the MAS for persons/groups, including the patient, the pharmacist, the GP and the rest of the health system. Following examination of the literature, these persons/groups were more specifically defined in order to encompass those observed to be impacted by the MAS. For reporting purposes the patient is understood to be the person receiving advice or treatment, their representative or dependent – for example, elderly relatives or children of the person who present at the pharmacy. The category of pharmacist is broadened to include the pharmacist technician or other eligible pharmacy staff. Reporting of enablers and barriers for the GP is supplemented by consideration of other staff in the general practice. The rest of the health system in this review represents other health-related professionals (hospital staff – specifically accident and emergency, as well as community nursing staff); the wider administrative infrastructure of the health system, especially the ICT infrastructure; the administration sector (personnel managing and administering the health system) and the policy sector (personnel responsible for the development of health policy).

An additional area of interest in assessing enablers and barriers is considering the points at which persons providing or using the systems and the system itself interact. The size or the direction of such interactions is not possible to report for two reasons. Firstly, there is little evidence that such interactions have been statistically assessed or quantified, and it is unclear that it is possible to do so in any meaningful way. Secondly, the interaction between the MAS and the national health system is individual and may not be applicable to other jurisdictions. For example, the pharmacist and GP interaction in relation to MAS patient referral in Scotland differs to that of England. In Scotland, the MAS is a core pharmacy service, with a well-established list of conditions eligible for treatment for a specific section of the population, and its continuity since 2005 may serve to integrate the scheme into the wider health service. In England, service delivery is locally commissioned, which results in a fragmented national service. The availability of the MAS, list of conditions and the eligible population differs periodically according to the most recent local area needs assessment. Such differences in England may result in low awareness of service specifications, an unwillingness to refer, referral for unavailable treatments, or referral of ineligible persons.

Enablers and barriers relating to patients, pharmacists and general practitioners

A list of enablers and barriers for patients, pharmacists, GPs and the rest of the health service is presented in Table 10. Repeating patterns were observed with a number of enablers and barriers common to different health service participants (patients and providers) and service types (pharmacy, general practice, as well as accident and emergency).

Awareness of the presence and coverage of the scheme with regard to conditions and treatment, and access, is not only determined but is a requirement of uptake and use of the MAS by patients, pharmacists, GPs and their staff, and other professionals in the health system. These factors influence if and how patients use the scheme; pharmacists who provide the scheme; how GPs, their staff and staff in the wider health service refer patients to the scheme. Likewise, a lack of awareness of the scheme negatively impacts on use, whereas a poor understanding of what is covered in the scheme results in inappropriate referrals. Furthermore, inappropriate referrals serve to weaken belief in the scheme and waste patients' time as well as practice staff members' time, with patients frequently re-consulting the initial service provider.

Faith in the scheme is an important component if GPs and other staff are to refer patients, and if patients are to use the MAS.

The second set of enablers identified encompassed issues related to preference. Some respondents associated attendance at a pharmacy with privacy and anonymity; others expressed a preference for attending a GP. The influence of preference was further exacerbated by issues of location. It was not possible to establish whether convenience and preference for location were more important factors than a patient's preference for a particular provider. Indeed, it is possible that this preference varies across groups over time and even for the same person, depending on other circumstances. Nevertheless, provider preference and location were identified as both enablers and barriers by both service users and professionals referring patients to the MAS.

This interaction of factors and players, and their dual direction of circularity, were observed to be a common feature of factors identified, and in determining if indeed they were barriers and/or enablers – with location (as a service user or provider), perception and rationale for service provision being the determinant of status.

The next set of enablers and barriers related to the area of training, upskilling and competencies – both theoretical exam-based assessment and practice skills attainment. Pharmacists were empowered by undertaking formal didactic training and by experiencing a sufficient volume of referrals (patient self-referrals as well as referrals from other professionals), thus increasing confidence in their ability to provide a quality service. However, once again, the requirement to undertake such training was also in some instances considered to be a barrier by pharmacists.

The context of service provision greatly influenced service success. A well-developed model of pharmacy-based services and the piloting of new aspects of service provision allowed a structured phasing-in of the MAS. Scotland, for example, tested and evaluated changes to prescription transfer processes (an information and communication infrastructure aspect of service roll-out) and diagnostic procedures (a more clinical skills-based competency). Initially, Wales introduced service delivery with low levels of information dissemination, thus allowing pharmacists to develop structured work patterns in order to balance the workload distribution of dispensing medicines, dispensing advice and providing treatment.

Enablers and barriers relating to the information and communications technology infrastructure
A well-designed data capture system serves to organise governance requirements in a structured step-by-step manner, both guiding and facilitating work processes and data recording for the pharmacist. At a broader level such a system also allows supporting protocols to be embedded in and accessed through the pharmacy-based terminal. Additional captured data may be transferred in a secure manner over the Internet, and allow timely assessment of MAS uptake and reimbursement for service provision. The principal infrastructure barriers are the financial requirements to develop a national-level data capture system, skills required to use the system, and compliance with data protection issues to safeguard personal information.

Enablers and barriers relating to the wider health sector: administration and policy development
The package of pharmacy-based service delivery is determined at policy level through a combination of government commitment to specific forms of care, negotiation with professional bodies tasked with delivering the services, and consideration of how the service will integrate with other services in the wider health sector. Many aspects of these negotiations are addressed in the national pharmacy contract and drug tariffs. Inter-sectoral discussions determine the scope of service provision (conditions to be covered, agreed treatments, eligibility criteria); boundaries with, or overlap with, other areas of service provision (who will deliver, where it will be delivered); service costs (training requirements, drug and treatment costs, ICT infrastructure requirements, ICT administration requirements, awareness campaigns); funding sources (training requirements, drug and treatment costs, ICT infrastructure requirements, ICT administration requirements, awareness campaigns).

Information on competing service funding requirements, ICT infrastructure development, integration and subsequent upgrading costs as well as clinical governance training costs are just some of the areas to be examined and costed before a detailed list of areas requiring consideration can be developed.

Finally, and more generally, MAS introduction – as with the introduction of any new model of care – requires successful change management. A range of methods identified as effective in managing MAS introduction are presented in Table 9.[80]

Table 9 Key factors of successful change management

	Effective methods	Ineffective methods
To drive the scheme	• Use national and local opinion leaders to endorse the change. • Identify local leaders who will champion the cause and act as change agents.	Passively gaining local consensus on the scheme
To implement the scheme	• Ensure that sufficient resources, i.e. time, money and skills are in place. • Involve all key stakeholders at an early stage. • Be prepared to be pragmatic and flexible within the rigorous, pre-planned framework for implementation. • Start small and build incrementally. • Do not expect to change behaviour overnight. • Target the enthusiasts/innovators first. • Accept that individuals vary in their acceptance of change. • Improve the understanding of roles and relationships between healthcare professionals. • Use what is already there (such as regular team meetings, educational events, communication forums, audit processes) and build on previous work. • Use convincing arguments – changes are more likely to be implemented if they are perceived as being: (i) Advantageous (ii) Compatible with what is already happening, with the presence of an acceptable first step (iii) Simple (iv) Able to be tried out in instalments (v) Effectively implemented in other practices or settings.	
To educate the healthcare professionals involved	Employ a number of variable methods. • Use interactive methods, e.g. participation of healthcare providers in workshops that include discussion or practice. • Utilise postgraduate education programmes. • Use educational outreach visits. • Use multidisciplinary education programmes where appropriate. • Ensure that the following points are emphasised: (i) The reason for the change in practice (ii) The published evidence base for the scheme (iii) The benefits to patients (iv) The benefits to frontline staff	• Passive distribution of guidelines without explanation or follow-up. • Didactic educational meetings (e.g. lectures).

	Effective methods	Ineffective methods
	(v) The sustainability of the scheme.	
To educate the public	• Use mass media campaigns. • Ensure that the reason for the change and the benefits of the change are clearly communicated.	
To educate the patients	• Use patient-specific reminders (manual or computerised).	
To disseminate information about the scheme	• Disseminate by active education interventions. • Undertake educational outreach visits.	• Passive dissemination alone, e.g. publication in professional journals, presentations at meetings and mailing of educational material.
To feed back results of the scheme	• Utilise audit and feedback with follow-up reviews to improve performance. • Feedback should be ongoing and should always include specific recommendations.	• General feedback on current behaviour, which does not include specific recommendations.

Needs assessment

Funding may be public (as appears to be the case in Scotland, where training was provided by the local health authority, infrastructure update allowances were provided, and infrastructure and communications technology were developed by the Scottish Government); private or corporate (as appears to be the case in England with regard to the development of the PharmOutcomes database); or individually funded (as may be the case with regard to modules for ongoing professional development provided by Centres for Pharmacy Postgraduate Education, and paid for by pharmacists). It is beyond the remit of this review to report on national funding strategies and revenue and funding streams for the provision of health services, specifically pharmacy-based services. However, the MAS funding requirement areas identified in the course of this review are training in the provision of MAS governance processes, including clinical pathways, diagnostic skills, drug formulary costs and drug tariff setting, information campaigns, pharmacy restructuring (physical), pharmacy ICT requirements and ICT integration within the wider ICT structure. Cost must be further considered with regard to capital expenditure costs and running costs. Running costs are further stratified into service provision (service delivery, treatment) and maintenance. A full needs assessment, taking account of each of these areas, is required before a provisional costing of a MAS in the Irish context can be drafted.

Summary

The final area of interest addressed in the review related to the enablers of and barriers to the MAS as experienced by the patient, the pharmacist, the GP and the rest of the health system. A range of factors in the establishment, delivery, uptake and monitoring the scheme was found. Whether these factors were enablers or barriers – and to which stakeholder this perception may apply – varied. Nevertheless, the following barriers or enablers were identified: awareness of the scheme with regard to conditions, treatments and accessibility; provider preference; professional competencies across the range of governance requirements; development of the information and communication infrastructure, and administration and policy developments. A specific example of awareness of the scheme with regard to conditions, treatments and accessibility is the appropriate referral of patients to the pharmacist by general practice staff who know which ailments are eligible for treatment under the MAS – and also know the pharmacy opening times – is an enabler, and the corollary of this is a barrier. A specific example of provider preference is favouring the GP over the pharmacist; this is a barrier to using the scheme that could be overturned by GP support for and confidence in pharmacy services. Therefore, what is a barrier in one jurisdiction may be an enabler in another and vice versa. An important enabler is a well-designed data capture system serves to organise

governance requirements in a structured step-by-step manner, both guiding and facilitating work processes and data recording for the pharmacist.

Table 10 Enablers and barriers to MASs

Enablers	Barriers
Patient	
Awareness of the scheme	Lack of, or poor awareness of, the scheme
Understanding of service coverage – with regard to type and severity of conditions, eligible population	Lack of, or poor understanding of, service coverage specifications with regard to conditions and eligible population
Understanding of service coverage – with regard to access: geographical location, time	Lack of, or poor understanding of, times and location of service available for access
Provider preference (perceived privacy, anonymity)	Provider preference (GP)
Location preference – just around the corner, convenience of access when doing other shopping	Location preference – accident and emergency, general practice
Satisfaction with provided advice and/or treatment	Dissatisfaction with service provider, advice and/or treatment
Pharmacist	
Awareness of the scheme	Lack of, or poor awareness of, the scheme
Training – continuous ongoing professional development	Additional training requirements
Good understanding of service coverage – with regard to type and severity of conditions, eligible population	Poor understanding of service coverage – with regard to type and severity of conditions, eligible population
Good understanding of service coverage across other pharmacists – with regard to access, geographical location, time	Poor understanding of service coverage across other pharmacists – with regard to access, geographical location, time
Upskilling of professional competencies and associated increased pride in, and satisfaction from, work	Poor or restricted skills in the required competencies
Confidence in service provision (resulting from ongoing theoretical knowledge attainment and practice experience in service delivery)	Lack of confidence in own service provision
Increased respect among other professional colleagues	Belief that other professionals are more suited to addressing MAS conditions
Prior existence and roll-out of a wider bundle of pharmacy-based services agreed: • providing a wider base from which to develop clinical and other governance competencies, and • providing previous experience in the use of the supporting governance infrastructure	Little prior experience in the delivery of pharmacy-based services • apart from advice and dispensing , and • in the use of supporting governance infrastructures
Good inter-professional relationships	A lack of or poor inter-professional relationships or a lack of cooperation
Piloting of the scheme allowing a phased introduction of the scheme where problems can be identified and addressed before the scheme is formally rolled out	Rapid roll-out of the scheme with little time to adapt pharmacy practices to facilitate additional workload management

Enablers	Barriers
Development of work schedules to allow competing work requirements to be undertaken in a timely and efficient manner	Conflicting work requirements arising from dispensing and multiple pharmacy-based services delivery overload
Physical restructuring of pharmacy premises	Capital requirements for physical restructuring of pharmacy premises
	Lack of service continuity
	Lack of ring-fenced funding
	Lack of confidence in ICT system use
	Inappropriate referrals from GPs, resulting in resource misuse and poor patient satisfaction
GP	
Awareness of the scheme	Lack of, or poor awareness of, the scheme
Understanding of service coverage – with regard to type and severity of conditions, eligible population	Lack of, or poor understanding of, service coverage specifications with regard to conditions and eligible population
Understanding of service coverage – with regard to access: geographical location, time	Lack of, or poor understanding of, times and location of services available for access
Faith in the MAS	
Appreciation of more appropriate triaging of patient conditions in freeing up time	
Piloting of the scheme – to allow development of good referral processes, and understanding of restrictions to service provision	Rapid roll-out, with little interaction between the providing pharmacist (and pharmacy staff) and the GP (and the general practice staff)
Good understanding of service coverage – with regard to type and severity of conditions, eligible population	Poor understanding of service coverage – with regard to type and severity of conditions, eligible population
Good understanding of service coverage across other pharmacists – with regard to access, geographical location, time	Poor understanding of service coverage across other pharmacists – with regard to access, geographical location, time
	Adverse outcomes – patient boomerang from previous inappropriate referral
	Lack of continuity of service delivery to the patient
	Impact on income
	Issue of confidentiality (perceived or real)
The rest of the health system	
Other health-related professionals (general practice staff, hospital and community nursing staff)	
Understanding of service coverage – with regard to type and severity of conditions, eligible population	Poor understanding of service coverage – with regard to type and severity of conditions, eligible population
Understanding of service coverage – with regard to access: geographical location, time	Poor understanding of service coverage – with regard to access: geographical location, time

Enablers	Barriers
Provider preference – specifically taking account of service pressures in other areas of the system	Lack of, or poor awareness of, the scheme and the potential to redirect the location of service use
Information and communications technology (ICT)	
Good and excellent computing competencies, including network integration	Paper-based data collection process, which yields high error rates Delayed data analysis Duplication of written work for providers Increased staff requirements Higher supervision and coordination costs
Awareness of the wider national ICT health system functionality and links where necessary	Unlinked data systems
Well-designed data collection processes	
Automation of governance processes	
Integration of MAS data collection systems within the wider ICT system	
Embedding protocols and algorithms into the wider ICT system (clinical and the wider governance protocols agreeing the terms and conditions of service delivery, payment processes, drug formulary)	Paper-based protocols, which may not become obsolete
	Lack of computing competencies
	Isolated development of the MASs' supporting data collection system
	Capital and revenue costs to develop and maintain the ICT system
Administration	
Awareness of the scheme and how it fits within the wider package of pharmacy-based services and health services in general	Lack of, or poor awareness of, the scheme and how it fits within the wider package of pharmacy-based services and health services in general
Understanding of service coverage– with regard to type and severity of conditions, eligible population	Lack of, or poor understanding of, the service – with regard to type and severity of conditions, eligible population
Understanding of service coverage – with regard to access: geographical location, time	Lack of, or poor understanding of, service coverage – with regard to access: geographical location, time
Understanding of service overlap with other service areas	Lack of, or poor awareness of, how the service overlaps with service providers in other sectors
Understanding of service boundaries and limitations	Lack of, or poor understanding of, service boundaries and limitations
Policy setting	
Awareness of the scheme and how it fits within the wider package of pharmacy-based services and health services in general	Lack of, or poor awareness of, the scheme and how it fits within the wider package of pharmacy-based services and health services in general
Understanding of service – with regard to type and severity of conditions,	Lack of, or poor understanding of, the service – with regard to type and

Enablers	Barriers
eligible population	severity of conditions, eligible population
Understanding of service coverage – with regard to access: geographical location, time	Lack of, or poor understanding of, service coverage – with regard to access: geographical location, time
Understanding of service overlap with other service areas	Lack of, or poor awareness of, how the service overlaps with service providers in other sectors
Understanding of service boundaries and limitations	Lack of, or poor understanding of, service boundaries and limitations
Other general areas for consideration	
Piloting of service: Evidence from countries which extensively piloted the MAS identified major and minor areas requiring consideration before rolling out a nation-wide programme. The piloting of services allowed these issues to be addressed and adjustments to be made to the programme. These adjustments were made at fixed time periods and then further testing of procedures was undertaken in order to evaluate their effectiveness.	
Government commitment to funding service provision: Evidence from countries where MAS service provision was subject to frequent review, above and beyond quality assurance standard evaluation, suggested that pharmacists were reluctant to commit to service delivery. A guaranteed market with regard to a fixed catchment population as determined by a specified eligibility criteria, and a fixed list of conditions is one way of addressing this uncertainty.	
Learning from others' experience: ICT infrastructure – modules for MAS clinical governance. A range of databases have been developed which deal specifically with data recording and transmission processes. Communication with service providers in Scotland (eMAS), Wales (Choose Pharmacy), and Saskatchewan (Pharmaceutical Information Program) would provide examples and lessons on database development. Integration with wider ICT systems is also required	
Awareness campaigns: Use of media (television, radio, newspapers) to raise awareness of the MAS. Notices in general practices and A&E departments indicating the nature and location of services in local pharmacies. Display of posters in participating pharmacies on service availability. Clear and consistent information on the type of conditions eligible for treatment.	
Awareness exchange meetings: Networking of healthcare professionals to reach a shared understanding of the boundaries of service delivery, in order to deal with GPs' and general nurses' concerns	

Conclusions

In our initial pre-screening assessment of the evidence we observed that pharmacists in all countries reviewed were required to provide referral or self-care advice. In addition, Australia provides a MAS that is not publicly funded and New Zealand has an extensive self-care programme. The four jurisdictions in the UK and the two provinces in Canada have publicly funded minor ailments schemes. Following examination of and reporting on publicly funded schemes, we identified both universally delivered and eligibility-assessed MASs. Although different numbers of minor ailments were allowed to be treated in the different jurisdictions reviewed, commonality in ailments treated was observed across all jurisdictions, and the ailments treated represented a subset of a wider package of conditions in some countries. Competencies and governance requirements to deliver the scheme have been established, and pooled assessment of the reported training modules, contracts, assessment frameworks and related documentation would provide a good foundation when developing an appropriate national system. We observed that detailed planning, extensive piloting and automation of governance structures are essential steps to ensure quality patient care and effective monitoring. Costs were dependent on current health system structures, professional attainment standards and the breadth of service delivery, and can be determined through a national needs assessment process. While there are potential benefits to pharmacies and patients, the benefits to GPs who are independent contractors are not clear. It is essential that GPs are involved, and provide a good level of cooperation with the scheme from the outset.

Annexes

Annex 1: Methods

Table 11 Search strategy

Search strategy 1. Databases 2. Purposeful searching 3. Expert consultation	1. Database Google, PubMed (inception to 2015) with keywords (see below) Medline, Embase, CINAHL, and Health Management information Consortium (HMIC) 2. Purposeful searching of leads identified in references, including databases, government websites, pharmaceutical body websites and named individuals 3. Consultation with experts identified from retrieved papers and government and pharmaceutical body websites following identification in 1 and 2 above
Databases	
	Google (February to March 2015) keywords 'Minor ailments scheme', 'minor ailment and United Kingdom', 'minor ailment and Scotland', 'minor ailment and England', 'minor ailment and Northern Ireland', 'minor ailment and Canada', 'minor ailment and Australia', 'minor ailment and New Zealand'. Medline, Embase, CINAHL, and HMIC. Searched with a combination of the keywords 'minor ailments' and 'scheme'. This search resulted in 87 references from the four databases. Following deduplication of the results, this was reduced to 56 references, which were screened by title and abstract. NICE searching, without the quotation marks (" ") using the words: • minor ailments scheme currently yields 419 publications • minor ailments currently yields 2,972 publications • minor ailments yields 2,967 publications
Professional bodies (identified)	Pharmacy body (professional) • Australia – Pharmacy Guild of Australia local branch (New South Wales Branch, Northern Territory, Queensland, South Australia, Tasmania, Victoria, Western Australia) • Australia – Pharmaceutical Society of Australia • New Zealand – Pharmaceutical Society of New Zealand • Canada – Blueprint for Pharmacy, Canadian Pharmacists Association • Scotland • England – Pharmaceutical Services Negotiating Committee • Northern Ireland • Wales Other organisational types • Australia – Australian Self Medication Industry
Government bodies (identified)	Pharmacy body (government) • Canada – Office of Pharmaceutical Management Strategies, Strategic Policy Branch, Government of Canada • Scotland – Community Pharmacy Scotland, NHS National Services Scotland, Practitioner Services, NHS Scotland Government body statistical information • Scotland – Information Services Division, National Information and Intelligence, NHS National Services

	• England – Health & Social Care Information Centre • Wales – Health Statistics Wales Government Body (other) • Canada – Health Canada, the department of the Government of Canada with responsibility for national public health; Director General's Office, Health Canada; the government health bodies of the following named provinces and territories – British Columbia, Manitoba Government Inquiry, Medicare and Drug Plans New Brunswick, Nunavut, Ontario, Health Prince Edward Island, Saskatchewan Health Quality Council, Yukon Health and Social Care Services, Government of Yukon • England – East Lancashire Clinical Commission Group, NHS England, NHS Staffordshire and Lancashire Commissioning Support Unit, Primary Care Commissioning • Wales – Public Health Wales • Northern Ireland – COMPASS Business Services Organisation
Bodies – other (identified)	Universities • Canada – College of Pharmacy and Nutrition, University of Saskatchewan • England – Centre for Pharmacy Postgraduate Education, Manchester Pharmacy School Manchester • Wales – Welsh Centre for Pharmacy, Professional Education • Northern Ireland – Primary Care Pharmacy, Queen's University Belfast Other types of organisation • Scotland – NHS Education for Scotland, Centre for Pharmacy Postgraduate Education • Northern Ireland – Northern Ireland Centre for Pharmacy Learning and Development
Contacts (identified)	See Tables 12 and 13
Inclusion/exclusion criteria	Examination of retrieved references and consultations with persons working in the area of minor ailments (in various countries) identified MASs – recognised by this review as the provision of advice and where necessary treatments, coupled with government-funded repayment – in the four jurisdictions of the United Kingdom and the Canadian province of Saskatchewan. Advice and programmes on minor ailments are delivered in other countries, but not under the eligibility parameters identified in this review. Such advice or programmes represent nationally agreed core pharmacy-based services (in the national pharmacy contract) or programmes where payment reimbursement is not government funded. The inclusion exclusion criteria were therefore: • included – Scotland, England, Wales, Northern Ireland and the Canadian province of Saskatchewan • excluded – Australia (all states), New Zealand, all provinces of Canada apart from Saskatchewan and Alberta.[1] Earlier discussion with the Irish Department of Health had ruled out consideration of United States of America.
Inclusion/exclusion criteria	See Figure 6 and Figure 7

1 Alberta pharmacists who have obtained additional prescribing authority can prescribe any drug for any condition for which they have demonstrated competence, with the exception of controlled drugs and narcotics. Therefore, Alberta has been referenced in this review but, as the programme is not a MAS as identified by the review, reporting is limited.

Table 12 Organisations and individuals contacted

Country	Contact person	Department – Institution	Institution – Country
Australia	Chris Flood	National Manager – Agreement Policy and Planning	The Pharmacy Guild of Australia
	Deon Schoombie	Australian Self Medication Industry	Australia
		Department of Health	Australia
New Zealand		Ministry of Health	New Zealand
New Zealand	Mary Wong	Staff Pharmacist: Self-care and College Pharmaceutical Society	Pharmaceutical Society of New Zealand Inc. Wellington, New Zealand
Canada		Manitoba Government	Canada
Canada		Alberta Government	Canada
Canada		Nova Scotia Public Inquiries	Service Nova Scotia Canada
Canada	Julie Déry	Centre de relations avec la clientèle	Québec
Canada	Frances Hall, Director	Office of Pharmaceutical Management Strategies	Government of Canada
Canada	Iain Smith	Health input	Prince Edward Island
Canada		Prince Edward Island	Health Prince Edward Island
Canada		Ministry of Health	British Columbia Health
Canada		Service Ontario	Ottawa
Canada	Kelsey Skromeda	Project Manager – Blueprint for Pharmacy	Canadian Pharmacists Association
Canada	Charlene Rice	Medicare – Eligibility and Claims	Department of Health, Canada
Canada	Charlene Rice	Client Advocate Department of Health Medicare	Canada
Canada	Patricia Living	Director, Social Marketing and Communications	Health and Social Services, Government of Yukon, Canada
Scotland	Michael Oswald	Pharmacy Services Supervisor	Community Pharmacy Scotland
Scotland	James Smith	Information Services, Information and Intelligence	NHS National Services Scotland
Scotland	Ken Truslove	Service Improvement Manager: Pharmacy Programmes	Practitioner and Counter Fraud Services, NHS Scotland
Scotland	Barry Melia	Senior Pharmacist, Public Health and Intelligence	Strategic Business Unit, NHS National Services Scotland
England	Charlotte Goodson	Adviser, Primary Care Commissioning (PCC)	Community Interest Company
England		Health and Social Care Information Centre	Leeds, England
England		Department of Health	England
England		NHS England	England
England	Lesley Grimes	Lead Pharmacist, Learning Development	Centre for Pharmacy Postgraduate Education, Manchester Pharmacy School, England
England	Linda Bracewell	Baxenden Pharmacy Chair	Lancashire Pharmacy Network
England	Dr Lisa Rogan	Head of Medicines Commissioning	East Lancashire Clinical Commissioning Group
England	Rosie Taylor	Pharmacy and NHS Policy Officer	Pharmaceutical Services Negotiating Committee
England	John Vaughan	Medicines Commissioning Pharmacist	East Lancashire Clinical Commission Group
Wales	Andrew Evans	Principal Pharmacist	Welsh Government
Wales	Anne Hinchliffe	Consultant in Pharmaceutical Public Health	Public Health Wales
Wales	Chrissie Collier	Senior Medicines Management Scientist	Welsh Analytical Prescribing Support Unit All Wales Therapeutics and Toxicology Centre
Wales	Ian Jones	Senior Research Officer	Health and Social Services, Welsh Government
Wales	Deirdre Leigh	Health Statistics and Analysis Unit	Health Statistics and Analysis Unit, Welsh Government
Northern Ireland	Carmel Hughes	Professor of Primary Care Pharmacy	School of Pharmacy, Queen's University Belfast

Northern Ireland	Christine Kelly	Pharmacy Services Adviser	Health and Social Care Board
Northern Ireland	Joe Brogan	Health and Social Care Board	Northern Ireland
Northern Ireland	Leah Hadzik	Health and Social Care Board	Northern Ireland

Table 13 Organisations and individuals identified for consultation on aspects of minor ailments schemes

Reference search	Person	Institution	Contact person or body (e-mail address)
Australia		Australian Self Medication Industry	info@asmi.com.au
Australia		The Pharmacy Guild of Australia	guild.nat@guild.org.au
Australia		Pharmacy Guild of Australia Local branch New South Wales Branch	anne.bidstrup@nsw.guild.org.au
Australia		Pharmacy Guild of Australia Local branch	guild.act@guild.org.au
Australia		Pharmacy Guild of Australia Local branch Northern Territory	office@ntguild.org.au
Australia		Pharmacy Guild of Australia Local branch Queensland	guild.qld@qldguild.org.au
Australia		Pharmacy Guild of Australia Local branch South Australia	guildsa@sa.guild.org.au
Australia		Pharmacy Guild of Australia Local branch Tasmania	guild.tas@guild.org.au
Australia		Pharmacy Guild of Australia Local branch Victoria	info@vic.guild.org.au
Australia		Pharmacy Guild of Australia Local branch Western Australia	reception@wa.guild.org.au
Australia	Deon Schoombie	Australian Self-Medication Industry	Deon@asmi.com.au
Australia	Chris Flood	The Pharmacy Guild of Australia	Chris.Flood@guild.org.au
Australia	Lance Emerson	Pharmaceutical Society of Australia	Lance.Emerson@psa.org.au
New Zealand		The Ministry for Health	info@health.govt.nz
New Zealand	Mary Wong	Pharmaceutical Society of New Zealand	m.wong@psnz.org.nz
Canada		Health Canada: Government national public health department	Info@hc-sc.gc.ca
Canada		British Columbia	hlth.health@gov.bc.ca
Canada		Manitoba Government Inquiry	mgi@gov.mb.ca
Canada		Medicare and Drug Plans New Brunswick	medicare@gnb.ca
Canada		Department of Health and Community Services Newfoundland	mcpregistration@gov.nl.ca
Canada		Nunavut	mbaikie@gov.nu.ca
Canada		Ontario	infoline.moh@ontario.ca
Canada		Health Prince Edward Island	healthinput@gov.pe.ca
Canada		Saskatchewan Health Quality Council	info@hqc.sk.ca
Canada		Yukon Health and Social Care Services	hss@gov.yk.ca
Canada		Patricia Living, Government of Yukon	Patricia.Living@gov.yk.ca
Canada	Karen Jensen	College of Pharmacy and Nutrition, University of Saskatchewan	kaj121@mail.usask.ca
Canada		Director General's Office, Health Canada	insp-dgo_bdg-insp@hc-sc.gc.ca
Canada	Frances Hall	Office of Pharmaceutical Management Strategies, Strategic Policy Branch, Government of Canada	frances.hall@hc-sc.gc.ca
Canada	Kelsey Skromeda	Project Manager, Blueprint for Pharmacy, National Coordinating Office, Canadian Pharmacists Association	kskromeda@pharmacists.ca
Scotland		Community Pharmacy Scotland	csd-enquiries@cpscotland.org.uk
Scotland	Michael Oswald	Community Pharmacy Scotland	enquiries@cpscotland.org.uk

Scotland		National Services Scotland	NSS.isdprescribing@nhs.net
Scotland	Barry Melia	National Services Scotland	barrymelia@nhs.net
		Practitioner Services, NHS Scotland	PSDHelp@psd.csa.scot.nhs.uk
England	Lisa Rogan	East Lancashire Clinical Commission Group, NHS England	lisa.rogan@eastlancsccg.nhs.uk
England		Pharmaceutical Services Negotiating Committee	Rosie.Taylor@psnc.org.uk
England		NHS England	england.contactus@nhs.net
England		Health & Social Care Information Centre	enquiries@hscic.gov.uk
England		General e-mail	nss.isdprescribing@nhs.net
England	John Vaughan	NHS Staffordshire and Lancashire Commissioning Support Unit	john.vaughan4@nhs.net
England		NHS National Services Scotland	nss.psdhelp@nhs.net
England	Lesley Grimes	Centre for Pharmacy Postgraduate Education Manchester Pharmacy School Manchester	Lesley@cppe.ac.uk
England	Karen Tanner	NHS	karen.tanner1@nhs.net
England	Charlotte Goodson	Adviser, Primary Care Commissioning	Charlotte.Goodson@pcc.nhs.uk
England		Health and Social Care Information Centre	enquiries@hscic.gov.uk
England		Health and Social Care Information Centre	pubadmin@hscic.gov.uk
Wales		Health Statistics Wales	stats.healthinfo@wales.gsi.gov.uk
Wales	Deirdre Leigh	Health Statistics and Analysis Unit, Welsh Government	Deirdre.Leigh@Wales.gsi.gov.uk
Wales	Ian Jones	Senior Research Officer, Welsh Government	ian.jones2@wales.gsi.gov.uk
Wales	Anne Hinchliffe	Consultant in Pharmaceutical Public Health, Public Health Wales	Anne.Hinchliffe@wales.nhs.uk
Wales	Andrew Evans	Principal Pharmacist, Welsh Government	Andrew.Evans@Wales.gsi.gov.uk
N.Ireland	Carmel Hughes	Professor of Primary Care Pharmacy, Queen's University Belfast	c.hughes@qub.ac.uk
N.Ireland	Leah Hadzik	Health and Social Care	leah.hadzik@hscni.net
N.Ireland	Joe Brogan	Head of Pharmacy and Medicines Management, Health and Social Care	joe.brogan@hscni.net
N.Ireland	Christine Kelly	Pharmacy Services Adviser, Health and Social Care	Christine.Kelly@hscni.net
N.Ireland		COMPASS Business Services Organisation	compass.team@hscni.net

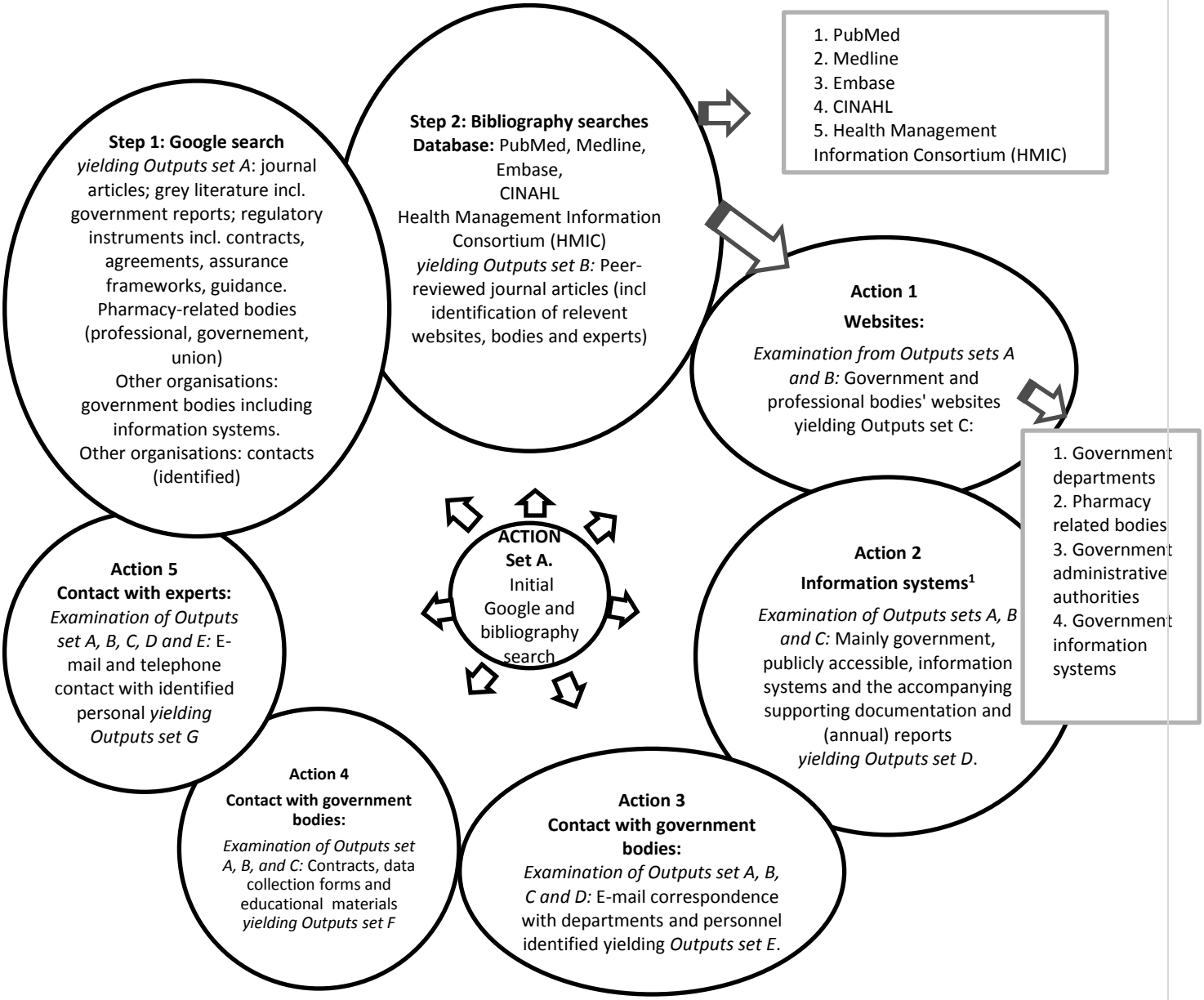


Figure 6 Search and screen strategy phase I

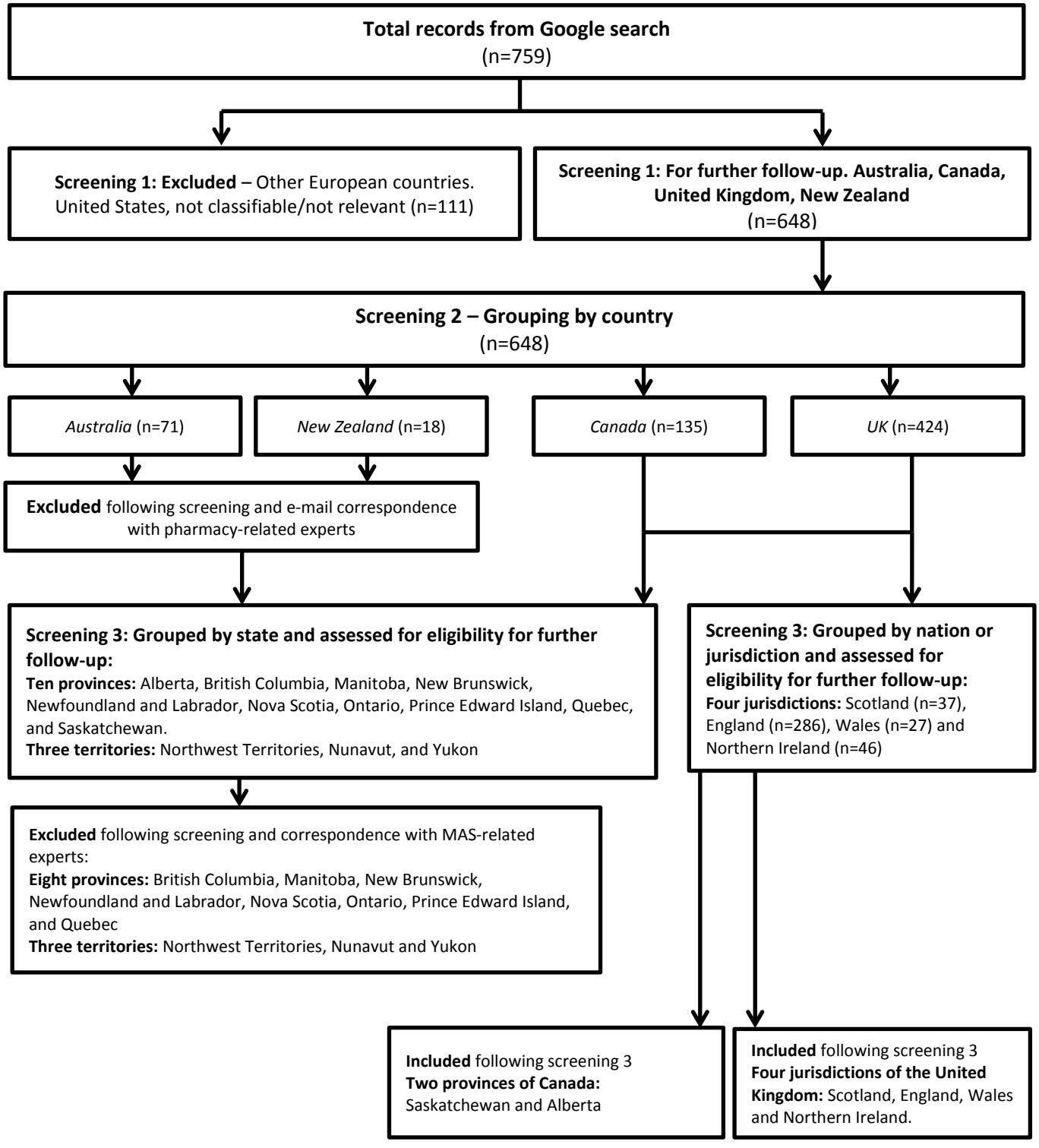


Figure 7 Diagrammatic representation of bibliography databases, government and professional bodies, information systems and experts

Annex 2: Clinical protocols details

Scotland: Responding to minor ailments

Responding to minor ailments

5. INFECTIONS AND INFESTATIONS

5.1 Threadworm

Threadworm or pinworm (Enterobius vermicularis) is a small, white, thread-like worm 2-13 mm long, which lives in the upper part of the colon. Infection is limited to humans; **threadworms are not transferable to or from animals.** It most commonly affects children, due to their poor attention to personal hygiene, but can affect whole families. High rates of infection can occur in residential homes.

The female lays large numbers of eggs with irritant mucus at night, which causes intense itching and promotes scratching by the host. The eggs are laid outside the anus, or, in girls, around the vagina and urethra. Re-infection occurs when eggs are ingested from contaminated hands and exposed to the action of digestive juices in the upper intestinal tract. Adult threadworms live for up to six weeks.
Confirmatory diagnosis is usually by sighting of the worms. This can be either around the perianal area, most easily seen at night or, more rarely, on the faeces.

DANGER SYMPTOMS

Secondary bacterial infection may occur as a result of perianal scratching. If there is a persistent or heavy infestation, appetite loss, weight loss, insomnia, irritability and enuresis may occur.

Differential diagnoses
In adults perianal itching may be due to haemorrhoids, eczema or irritants such as deodorants.
Other parasitic worm infections, although rare in the UK, are also possible, for example roundworm. If this is suspected, referral for a routine appointment would be required.
Treatment options
Hygiene measures alone may be considered when drug treatment is not wanted or is not recommended (e.g. during pregnancy). If the measures described under “Practical Tips” below are followed for six weeks, all the worms in the intestine will have died and hopefully no new eggs will have been swallowed to replace them.
Where *anthelmintics* are used, all members of the household should be treated simultaneously.
Mebendazole (*Ovex* ®) is the treatment of choice in adults and children older than two years. It is usually given as a single oral dose, but often needs to be repeated after two to three weeks if re-infection occurs. Mebendazole acts by inhibiting the uptake of glucose by the worms, causing immobilisation and death. Transient abdominal pain or diarrhoea can occasionally occur, especially in people with heavy infestations.

Piperazine combined with senna (*Pripsen® powder*) is licensed for adults and children older than 3 months. It is given as a single dose, repeated after 14 days. Piperazine blocks the neurotransmitter acetylcholine in the worm, leading to paralysis. Senna helps to expel the worms from the intestine by its laxative effect. Gastrointestinal disturbances including nausea, vomiting, colic, and diarrhoea are the most common adverse effects. Neurotoxic reactions resulting in convulsions have been reported in people with neurological or renal abnormalities. Piperazine is contraindicated for people with epilepsy, neurological disease, or severe renal or hepatic impairment.

Practical tips

- wear close-fitting pyjama bottoms or pants at night to avoid shedding eggs
- bathe or shower first thing in the morning, paying particular attention to the anal area
- emphasise good hygiene, particularly washing hands after going to the toilet and before preparing or eating food
- cut fingernails short
- launder bedding and towels daily if possible as eggs can remain viable for up to two weeks (avoid shaking linen as this spreads the eggs)
- damp dust surfaces and vacuum daily

5. Infections

Threadworms

Mebendazole

Piperazine

Tablets (chewable) 100mg. Suspension 100mg/5ml
Dose: 100mg as a single dose for adults and children over two years of age.
Re-infection requires a second dose after two weeks.
Use for children under two years of age.

Refer to BNF
All family members should be treated at the same time, even if there are no symptoms, to avoid risk of re-infection.

When to refer to GP
Infection other than threadworms suspected
Recent travel abroad
Medicine failure

THREADWORMS

General information
Treat person if threadworms have been seen or eggs detected. Treat all household members at same time, unless contraindicated. Treatment is given as a single dose. As re-infection is very common, a second dose may be given after two weeks. Pack size will be two treatments for every household member (could include tablets and liquid). Children do not need to be excluded from school.

General information
Refer if person is pregnant or breastfeeding, or is a child < 6 months.

Treatment(s) offered	Pack size	Maximum number of packs to be supplied	Number of episodes per year	Information/instructions	
Mebendazole (Vermox®) 100 mg/5 ml suspension	30 ml (via PGD)	See Information/ instructions	1	Only if person > 6 months.[35] Use in children aged under two years is unlicensed	Sufficient quantities should be provided to allow all members of the household to be treated simultaneously. The names of all those who will be treated with the treatments provided should be documented.
Mebendazole (Vermox®) 100 mg tablets	six (via PGD)	See Information/ instructions	1	Only if person > 6 months.[35] Use in children under two years is unlicensed.	

Treatment should be combined with hygiene measures:
• Environmental – on first day of treatment:
– wash sleepwear, bed linen, towels and soft toys at normal temperature and rinse well;
– vacuum and dust, especially bedrooms, including mattresses;
– clean bathroom thoroughly, damp-dust surfaces and rinse cloth in hot water frequently.
• Personal – for two weeks when combined with drug treatment:
– wear close-fitting underwear at night and change every morning;
– use cotton gloves to prevent scratching and wash them daily;
– bathe/shower on rising and wash around anus to remove eggs.
• General household – all the time for all family:
– wash hands and scrub under nails every morning on rising, after using the toilet, changing nappies, eating or preparing food;
– discourage nail biting/finger sucking;
– avoid use of shared towels or flannels.

Advice for self-care/Non-pharmaceutical treatment	Advice for pharmaceutical treatment
Using non-drug treatments and meticulous attention to hygiene as set out below will cure threadworm in six weeks. Worms in the intestine die within this time, and if there is no re-infection by eggs being swallowed, no further worms will be produced. Drug treatment has no effect on threadworm eggs, which may remain viable for up to 2 weeks. To avoid re-infection it is essential to clear the living environment of viable worm eggs on the day that drug treatment is started. An initial cleaning blitz in bedrooms and bathrooms followed by continued routine good hygiene would seem a sensible approach. **Ask the patient to ensure that all members of the household follow the hygiene measures below:** • Wear close-fitting underpants at night. • Bath or shower washing around the anus first thing each morning and if possible, once more during the day. • Wash clothes in hot water regularly. Wash underwear, nightwear and all bed linen daily where possible. DO NOT shake the unwashed laundry, as this will spread the eggs. • Keep fingernails short and clean, and discourage finger sucking. • Always wash hands and scrub nails thoroughly first thing in the morning, after using the toilet, changing nappies, before eating or preparing food. • Keep separate towels • Clean the house, especially the bedrooms and bathrooms of the house daily by vacuuming the carpets and damp-dusting the surfaces to remove eggs. Wash the cloth in hot water regularly. • Disinfect toilet seat, handle or chain regularly. • Place toothbrushes in cupboard. Rinse them before use. • It is not necessary to exclude children with threadworms from school. Everybody in the family has to be treated because the threadworm eggs spread very easily. Continue hygiene measures for at least two weeks post-medication.	CKS states that mebendazole is the drug of choice where appropriate. Repeat mebendazole dose in 14 days if infection persists. Repeat piperazine dose in 14 days.

References:
Clinical Knowledge Summaries: Threadworms
http://www.cks.nhs.uk/threadworm/management/detailed_answers/view_all_detailed_answers#261580001 <8/5/09>
Birth to Five
Date issued: September 2009
Date of review: September 2011

Northern Ireland: Treatment algorithm for minor ailments (threadworms)

A threadworm or pinworm (Enterobius vermicularis) is a small, white, 'thread-like' worm between 2 and 13mm long living in the upper part of the colon.
Infection is limited to humans and animals are not affected. It is common in young children.

Symptoms:
Often asymptomatic, but the following symptoms can present:
• Intense itching and scratching in the perianal region especially at night which may lead to loss of sleep and irritability.
• Threadworms can sometimes be seen around the anus and in the stools, looking like tiny white threads
• Severe cases of infection can cause loss of appetite, diarrhoea, weight loss, insomnia, enuresis and irritability.
Prior to diagnosing the presence of threadworms: ensure itching of the perianal region in adults is not due to irritation of deodorants, tight nylon underclothes, haemorrhoids or perianal eczema.

Advice on Service
As all family members should be treated simultaneously (unless contraindicated), individual Pharmacy Vouchers for product should be produced for all **eligible** patients. However, only one consultation fee should be claimed. Where treating a family, fill out a multiple-consultation form.

Patient presents with anal itching

W – WHO IS THE PATIENT →
- Patients who fall outside the licensed age range
- Children under two years with epilepsy and/or kidney disease
- Pregnancy/breastfeeding

→ Refer to GP

W – WHAT ARE THE SYMPTOMS →
- Suspected secondary infection
- Perianal eczema
- Recent travel abroad
- Severe abdominal pain
- Repeated attacks
- Bouts of diarrhoea
- Suspected food poisoning

→ Refer to GP

H – HOW LONG HAS THIS BEEN OCCURRING →
- If duration of condition suggests continual re-infestation, the pharmacist should ensure that the patient understands how to break the infestation cycle.

A – ACTION TAKEN ALREADY →
- Drug treatment failure. Even after the patient has been instructed how to break the infestation cycle.

→ Refer to GP

M – MEDICATION →
- Suitable treatment option not available under Minor Ailment Service

→ Refer to GP

Self-care

Treatment options

Mebendazole 100mg tablets
Merbendazole Oral Suspension 100mg/5ml
Piperazine Phosphate Powder

Annex 3: Data collection and registration forms

Form 1 CP2 (SS)(5) [front] Scotland

FORM CP2	National Health Service (Scotland)		FORM CP2 (SS)(5)	National Health Service (Scotland)
Name			Name	
Address			Address	
Age if under 12 yrs.			Age if < 12 yrs.	
	Postcode	Pharmacy Stamp		Postcode
Yrs/Mths			Yrs/Mths	
	DOB/CHI No.	Dispensing Pack Sizes		DOB/CHI No.
	Male Female			Male Female
	Registration Withdrawal			**CMS Registration Declaration**
				Registration
		Dispensing Pack Sizes *(Numbers only)*		I hereby accept the patient named above into the Chronic Medication Service at this NHS community pharmacy under the terms and conditions of the relevant NHS Pharmaceutical Services Regulations and Directions. I consent to any relevant checks on the claims I make in respect of this service being undertaken by the Common Services Agency.
		Pack Sizes *(Numbers only)*		**CMS Withdrawal Declaration**
				Withdrawal
				I hereby withdraw the patient named above from the list of patients registered for the Chronic Medication Service at this NHS community pharmacy.
Declaration: "I accept the above named patient into the Minor Ailment Service and have registered them under the contracted terms and conditions of that service."				
Signature of Pharmacist	Date		Signature of Pharmacist	Date
Consultation Only / Refer to GP	PS Contractor Code	RPSGB Reg Number	PS Contractor Code	RPSGB Reg Number
Please read notes overleaf and complete relevant parts			**Please read notes overleaf and complete relevant parts**	
	01820182			00740074

Form CP2 (SS)(5) [back] Scotland

CP3(SS)(5)	IMPORTANT NOTES FOR PATIENTS		CP2(SS)(5)
CMS Registration Declaration			IMPORTANT NOTES FOR PATIENTS
			This form records that your pharmacist has supplied you with medicine free of charge, and/or offered you professional advice at your request. Fill in parts A and B below in black ballpoint pen
A: **Consent for Data Sharing**			
	I consent to any necessary and relevant dispensing and clinical data about my care under the NHS Chronic Medication Service (CMS) being shared between my community pharmacy and GP practice.	**A**	Is under 16 years of age
B: **CMS Registration**		**B**	Us 16, 17 or 18 years of age and in full time education
	I wish to access NHS pharmaceutical services under the NHS Chronic Medication Service (CMS) from this NHS community pharmacy and I understand and accept the conditions which apply to this registration for CMS, as explained by the pharmacist.	**C**	Is 60 years of age or over
C: CMS Eligibility			
	I confirm that: i) I am registered as a patient with a GP Practice in Scotland other than as a temporary resident; and ii) I have a long term condition(s) which requires ongoing management.	**D**	Has a valid maternity or medical exemption certificate (EC92)
		F	has a valid War Pension exemption certificate
D: CMS Declaration			
	I consent to any relevant clinical data about my care under CMS which is necessary and relevant to the prevention, detection and investigation of crime being shared between my pharmacy, GP Practice and the Common Services Agency. I declare that the information I have given on this form is correct and complete. I understand that, if it is not, appropriate action may be taken. I consent to the disclosure of relevant information from this form including to and by the Common Services Agency, my GP Practice and my community pharmacy to enable the Agency to confirm my eligibility to register for CMS and for the purposes of prevention, detection and investigation of crime. I also consent to the disclosure of any relevant data to the Agency for the purposes of prevention, detection and investigation of contractor fraud. **Please cross one box below and then sign and date the form**	**K**	is named on a current NHS HC2 certificate
		G	*gets, or has a partner who gets Income Support
		H	*has a partner who gets 'Pension Credit **guarantee credit**' (PCGC) *gets, or has a partner who gets, **income based** Jobseeker's Allowance
		I	*gets, or has a partner who gets, **income based** Jobseeker's Allowance
		J	*is entitled to, or named on, a valid NHS Tax Credit Exemption Certificate
		M	*gets, or has a partner who gets, **income related** Employment Support Allowance
			*Name ____ Date of Birth ____ NI no. ____
			*I am included in an award of income based Jobseeker's Allowance, income related Employment and Support Allowance, Income Support, Pension Credit Guarantee Credit or Tax Credit. Print the name of the person who gets the benefit.
		PART B **Declaration for patients who do not have to pay**	"I declare that the information I have given on this form is correct and complete. I understand that if it is not, appropriate action may be taken. I confirm proper entitlement to exemption/remission. To enable the NHS to check I have a valid exemption/remission and for the purposes of prevention, detection and investigation of crime, I consent to the disclosure of relevant information from this form including to and by the Common Services Agency, the NHS Business Services Authority, the Department for Work and Pensions, HM Revenue and Customs and Local Authorities. I agree to pay the cost of the prescription if I am later found not to be entitled. In addition, a statutory penalty may be payable."
	I am the patient		
	I am the patient's representative		

							Cross ONE box: I am the patient patient's representative
			Sign here		Date / /		Now sign below
CMS Withdrawal Declaration							Date / /
			I hereby withdraw my registration for the NHS Chromic Medication Service at this community pharmacy.				
(please cross one box below and then sign and date the form)							
			I am the patient			Sign here	
			I am the patient's representative			Print name and address if different from overleaf	
			Sign here		Date / /		

Form 2 GP 34 Scotland

National Health Service in Scotland **DECLARATION RELATING TO DRUGS & APPLICANCES ORDERED UNDER Part II of the National Health Service (Scotland) Act, 1978**	Form GP 34 (Scotland)
Please write with black ink in block capital	
I hereby claim payment in accordance with my terms of service for the drugs and listed appliances ordered on the prescription forms submitted with this declaration and supplied by me during the month	
M M Y Y Y Y Date of dispatch M M Y Y Y Y	e.g. 10 Feb 99= D D M M Y Y Y Y
Tick one box: First half month / Second half month / Full month	
Signature of contractor	
PPD contractor code	
Business name	Pharmacist's Stamp
Address	
Postcode	
Note for completion	
*Prescription forms much be batch into except and changed batches and the number of forms for each batch recorded below	
Included those marked 'x'	
Except from charges: No of forms / No of items	Subject to charges: No of forms / No of items
Authorised oxygen contractors	
GP10a (Stock code)	Oxygen rental
No of forms / No of items	No of forms / No of items
If there has been a change in ownership or any details of the contract have changed, please cross box and give detail over leaf	

Form 3 Request to access the Choose Pharmacy application Wales

PHARMACIST LISTING FORM

NHS PHARMACEUTICAL SERVICES
REQUEST TO ACCESS THE CHOOSE PHARMACY APPLICATION

Pharmacist application form which is to be submitted to the NHS Shared Services Partnership (NWSSP) by a registered pharmacist requesting approval to access the Choose Pharmacy application.

TO BE COMPLETED BY OR ON BEHALF OF THE PHARMACIST

HB area in which the pharmacist predominantly intends to provide the service (tick only one)

	Abertawe Bro Morgannwg University Health Board
	Aneurin Bevan University Health Board
	Betsi Cadwaladr University Health Board
	Cardiff and Vale University Health Board
	Cwm Taf University Health Board
	Hywel Dda University Health Board
	Powys Teaching Health Board

Full Name: _____ GPhC number: _____
Correspondence Address: _____
_____
Postcode: _____Telephone number: _____
E-mail address: _____
(For the issuing of confirmation of approval by the NWSSP to provide the service)

Access to the Choose Pharmacy application is strictly limited and available to only those community pharmacists who have read and signed this **Acceptable Use Statement**. You agree by accessing the Choose Pharmacy application that the community pharmacy and you are authorised and accredited to provide the relevant services to NHS Wales' patients who wish to be treated under the terms of the services.
Access or attempted access by unauthorised users is strictly prohibited. Unauthorised access is unlawful under UK law and is considered an offence under the Data Protection Act 1998 and Computer Misuse 1990. Unauthorised access attempts to the Choose Pharmacy application will be investigated and the perpetrators may be subject to disciplinary or legal action.

The NHS Wales Informatics Service (NWIS) is responsible for the Welsh Demographic Service (WDS) and reserve the right to restrict or deny access to all or some parts of the Choose Pharmacy application, if in our opinion, you have failed to comply with this Acceptable Use Statement or in the event of suspected misuse. The WDS maintains a register of Welsh residents' demographic details, including name, address, date of birth, General Practice and NHS number.

Before community pharmacists are given access to the Choose Pharmacy application they must have completed Level 2 Child Protection training and signed this Acceptable Use Statement. On completion of this training, your Health Board will provide training in the use of the Choose Pharmacy application.

Community pharmacists should be aware that all attempts made to access patient records will be logged and, if required, they must be prepared to justify any challenges made by the NHS Wales Informatics Service or other relevant NHS statutory bodies regarding the appropriateness of their access.

Community pharmacists are responsible for using the Choose Pharmacy application only in accordance with the Acceptable Use Statement, specifically:

(a) Accessing patient information only where they can justify this as necessary to undertake their role in providing the relevant NHS service;
(b) Not allowing others to access patient information using their log in details;
(c) Respecting the confidentiality of patient information in accordance with their professional code of conduct and the signed Confidentiality Agreement;
(d) Complying with the community pharmacy organisation's information security and data protection policies and information governance best practice documents (or equivalent).

Choose Pharmacy Application – Acceptable Use Statement

- Community pharmacists must undertake any NHS Wales agreed training before using the Choose Pharmacy application and the Welsh Demographic Service system.

- Community pharmacists must agree to comply with their organisation's information security and data protection policies and information governance best practice documents (or equivalent).

- Access to patient identifiable information is on a strictly need-to-know basis. Community pharmacists can only access information about patients where they can justify a need for the purpose of treatment, care or administration of that patient, in accordance with their Data Protection Act, Confidentiality and Subject Access Requests Procedure.

- Duty of Confidentiality. In accordance with contractual and professional codes of conduct, community pharmacists acknowledge their professional responsibility to maintain the confidentiality of information to which they have access.

- Once logged-in with their unique credentials, community pharmacists must never allow others to access the Choose Pharmacy application or the Welsh Demographic Service through their account.

- On no account should passwords be shared; this is a breach of the Community Pharmacy Information Security Policy. If you allow your log in credentials to be used by someone else and patient identifiable information is inappropriately accessed, you will be held liable**.**

Access to, and use of the Choose Pharmacy application and the Welsh Demographic Service will be monitored. Audit trails will be kept and any suspected abuse will be traced and reported for investigation.

- Unauthorised access to patient identifiable information. Community pharmacists should be aware that unauthorised access is an offence under the law and may lead to disciplinary action, including prosecution. All unauthorised access will be reported to both the General Pharmaceutical Council and your Health Board.
- Consultation Room. Access to the Choose Pharmacy application and the Welsh Demographic Service must only take place inside a secure consultation room.

Signed……Date …….
Print Name……
GPhC Number .....

Please submit this form to:
Contractor Services, NWSSP – PCS, The Oldway Centre,
36 Orchard Street, Swansea, SA1 5AQ
Fax: 01792 607394
E-mail: awpd@wales.nhs.uk

For NWSSP office use only:
Application checked by: _____ Date: _____
Approved: Yes ☐ No ☐ AWPD updated: _____
Choose Pharmacy e-mail request e-mailed to PCSD: _____

Request to PCSD to create a Choose Pharmacy account:
1. Request a webmail account for pharmacist
2. Advise NWSSP via awpd@wales.nhs.uk of account details

Display Name:	
NHS Windows Login (NADEX):	
NHS e-mail address:	
Proxy account:	
Password:	
Incident Number	

For NWSSP office use only:

Choose Pharmacy e-mail account details received from PCSD: _____

Approval letter/e-mail issued: _____

Form 4 Northern Ireland minor ailments service consultation record[81]

MINOR AILMENTS SERVICE
CONSULTATION RECORD

1. Date of Consultation dd/mm/yyyy Patient Details (use pharmacy PMR label)	6. Outcomes Advice Advice + Treatment Referral to GP/OHH
Name: Address Date of Birth	Advice details
2. Patient referral to Minor Ailment Service from Self referral Pharmacy GP surgery OOH GO Other (details)	Consultation fee claim Yea No 7. Treatment(s) supplied (refer to MA formulary)
3. Symptoms (Refer to list of symptoms/ conditions which can be treated under the Minor Ailments (MA) Service)	Product 1: (a copy of pharmacy label may be used) Name: Direction/Dose
Please detail:	Product 2 (if required): Name: Direction/Dose
5 Duration of symptoms < 24 1-2 days 3-4 days 5-6 days >6 day	If the Minor Ailment Service was unavailable would the patient have gone to the GP for a consultation or prescription? Yes No
5. Existing medical conditions which may impact on treatment Cardiovascular Diabetes Pregnancy/lactation CNS problems Respiratory disease Liver/renal failure Other conditions/medicines	I have provided this Service according to the NI Guidelines for the Minor Ailments Service Signature
(Please detail)	Pharmacy Voucher Serial No:

Patient Consent

I confirm I have received this treatment

Yes ☐ No ☐

I give permission for the pharmacist to inform my GP of this treatment, if requested

Yes ☐ No ☐

I agree that the information which I supply can be used to assess the effectiveness of the Service

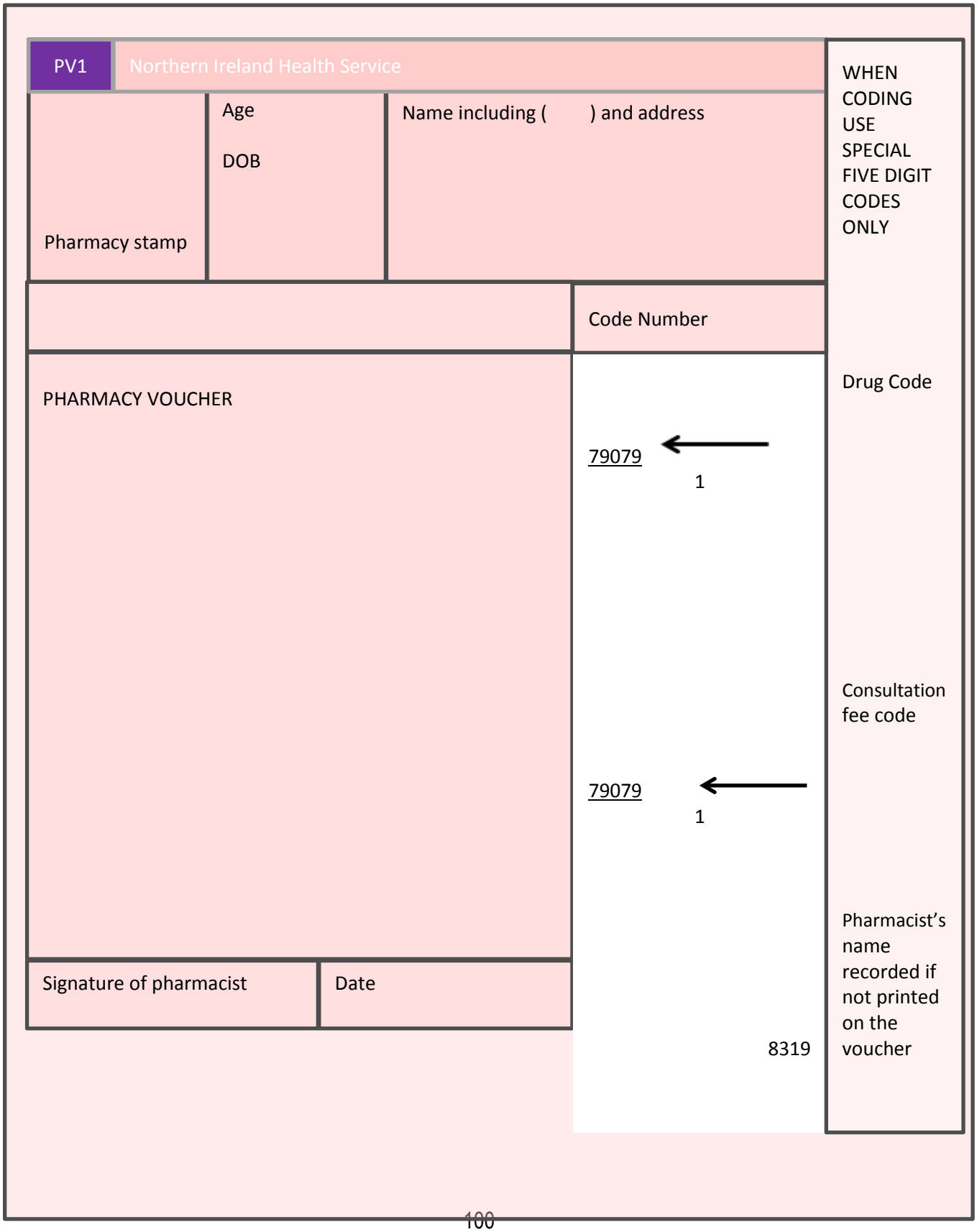
Yes ☐ No ☐

Patient's Signature

Date:

Department of
Health, Social Service and Public Safety
www.dhsspsni.gov.uk
An Roinn
Slainte, Seirbhisi Soisialta agus Sabhailteachta Poibli
Pousti, Resydenter Heisin an Fowh Siccar

Form 5 Pharmacy Voucher 1 Northern Ireland[81]



Form 6 Group consultation for minor ailments pharmacist record Northern Ireland[81]

Patient name				
Address				
Age if under 17 years				
Symptoms				
Duration of symptoms				
Existing medical conditions which may impact on treatment				
Product supplied Affix label				
Product supplied Affix label				
Advice				
Referral to GP				
Pharmacy Voucher No				
Patient/Parent or guardian consent for treatment				
Patient/Parent or guardian sharing of information				
Pharmacist Declaration. I have provided this service according to the Service Specification for the NI Minor Ailments Service Signature Print Name				

Form 7 Order and receipt log for Pharmacy Voucher Northern Ireland[81]

Order and Receipt Log

Date ordered	Ordered by (initials)	Method of order	No. ordered	Date received	No. of pads	Serial numbers	Stored by (initials)

SAMPLE VOUCHER LOG

A sample sheet is included for Pharmacy Vouchers and an explanation of the columns is given below:

Order and Receipt Log

1. Date ordered – Date the new vouchers were ordered by the pharmacist

2. Ordered by (initials) – Initials of the person who placed the order

3. Method of order – Indicate if the order was placed by fax or phone call

4. No. ordered – Number of vouchers ordered

5. Date received – Date the delivery arrived at the pharmacy and was placed in the pharmacy safe

6. Serial numbers – The first and last serial number of each pad should be recorded. The numbers are in sequence. However, the last digit is a check digit. It should be recorded but will not appear to be in sequence. A separate line should be used to record the numbers of each pad

7. **Stored by (initials)** – Initials of the person who placed the vouchers in the safe and who completed the log book

Form 8 Standard operating procedure process (key features) Northern Ireland[81]

Revision chronology		
Version number	Effective date	Reason for change

July 2009

Standard operating procedure					
Master copy			Training copy		
Title	Minor ailments				
SOP number	Assigned this SOP a number				
Version	1				
Effective date	Enter date				
Review date	Enter review date (normally 12 months from effective date)				
Superseded version number and date (if applicable)					

Purpose

This standard operating procedure (SOP) describes the minor ailments service process in this pharmacy:

To ensure that the minor ailments service is operated in a safe and secure way by pharmacists, pharmacy staff and locums.

To ensure that pharmacists, pharmacy staff, locums, GP practice staff and patients/patient's representative understand how the scheme works.

Note: You could make this section more detailed to reflect your own pharmacy practice

SCOPE

This procedure covers minor ailments services operated by this pharmacy.

RESPONSIBLE PERSONNEL

The service will be delivered by accredited pharmacists, pharmacists (including locums) working in this pharmacy, dispensary support staff and counter staff involved in the dispensing process who have been trained by the accredited pharmacist and have been deemed competent to be involved in the delivery of this service (e.g. to evaluate if a patient is eligible to participate in the service).

NB: It must always be the pharmacist who carries out the consultation.

The name(s) of the accredited pharmacist(s) for this pharmacy are:

Pharmacist's name	Date

Other staff responsible for assessing patient eligibility to participate in the minor ailments service are:

Name	Position	Confirmation training received	Confirmation of competence	Date

This section covers how the minor ailments service is operated in this pharmacy.

- Presentation of patient[1]
- Assessment of the patient[2]
- Completion of the consultation record
- Provision of advice[3]
- Provision of supply of medicines[1]
- Assembling and labelling of required medicine or produce[4]
- Checking procedure[3]
- Completion of the pharmacy voucher
- Transfer of the medicine or product to the patient[1]
- Submitting vouchers and retaining consultation records[1.]

1. Follow normal procedure as per Over the counter (OTC) Standard Operating Procedures (SOP) (enter title and number) with specific stated addition:
2. Follow normal procedure as per Over the counter (OTC) Standard Operating Procedures (SOP) (enter title and number) with specific stated questions:
3. Follow normal procedure as per Over the counter (OTC) Standard Operating Procedures (SOP) (enter title and number)
4. Follow normal procedure for labelling of dispensed medicines and record on PMR as per SOP.[82]

Form 9 Saskatchewan pharmacist assessment – tinea corporis (ringworm)

Name:	Gender:	
Address:	DOB:	HSN:
Telephone:	Pregnant	Lactating
Medical history		
Drug history/Drug allergies		
Patient history		
Is the patient diabetic? ☐ No → Continue ☐ Yes → Refer to MD Is the patient immunocompromised (disease or drug-induced)? ☐ No → Continue ☐ Yes → Refer to MD Has the patient been in contact with persons with similar symptoms or pets/animals suspected of having ringworm? ☐ Yes → Supports patient's diagnosis Has the patient previously been diagnosed with tinea corporis by a physician? ☐ Yes ☐ No Has the patient tried any non-pharmacologic or pharmacologic treatment for ringworm? No ☐ Yes → What? Effect?		
Review of symptoms		
Does the patient have fever, fatigue, swollen lymph glands or other symptoms of systemic illness? ☐ No → Continue ☐ Yes → Refer to MD Is this a previous ringworm infection that did not fully clear despite proper treatment? ☐ No → Continue ☐ Yes → Refer to MD Are large areas of the skin involved? ☐ No → Continue ☐ Yes → Refer to MD Are there lesions on the scalp? ☐ No → Continue ☐ Yes → Refer to MD Are symptoms consistent with diagnosis of tinea corporis? ☐ Circular/oval red patch expanding outwards ☐ Raised scaly border, clear central area ☐ Lesion from 1–10 cm in diameter ☐ Lesions on face, neck, trunk or limbs		

☐ Predominately yes → Continue ☐ No, consider other conditions / refer to MD

Treatment

☐ Non-pharmacologic treatment measures

☐ OTC topical
Options: clotrimazole, miconazole, tolnaftate

Recommended:

☐ Prescription antifungal (slightly more effective/more rapid acting)
Options:
☐ **Terbinafine 1% Cream** (children >12 and adults)
Apply adequate amount of cream to cover affected area and approximately 2cm beyond visible edge of lesions ONCE daily for 7 days.
Massage in gently.
Mitte: 30g

☐ **Terbinafine 1% Spray** (children >12 and adults)
Spray sufficient amount of solution to cover treatment area and surrounding skin ONCE daily for 7 days.
Mitte: 30ml
☐ **Ketoconazole 2% Cream**
Apply adequate amount of cream to affected area and approximately 2cm beyond visible edge of lesions ONCE daily for 3 to 4 weeks.
Massage in gently.
Mitte: 30g

Prescription issued for minor ailment	pseudoDIN:009511101
Rationale for prescribing: Rx: Quantity: (7 days for terabinafine; 3-4 weeks for ketoconazole): Directions:	
Counselling	
☐ Adjunctive measures to ensure positive outcomes ☐ Duration of therapy (and to extend 1 week after symptoms resolve unless using terbinafine) ☐ Appropriate application area ☐ If no improvement after 1 week of pharmacologic treatment, or if symptoms worsen, consult MD	
Follow-up scheduled in 7 days (date:): ☐In pharmacy ☐Telephone (number):	
☐ Assess initial effect ☐ If worsening or no improvement, refer to MD ☐ If improving, encourage continued treatment for 1 week after symptoms resolve (unless using terbinafine)	
Prescribing pharmacist:	
Name:	

Name of pharmacy:	Telephone:
E-mail:	Fax:
SIGNATURE	**DATE:**

Annex 4: MAS scope and conditions

Table 14 Minor ailment conditions in the four jurisdictions of the United Kingdom and the province of Saskatchewan in Canada

System Condition	Scotland[83]	England[36]	Wales[84]	Northern Ireland[85]	Saskatchewan[55]
	Type of service provided				
	National service	Locally commissioned or enhanced service	Piloted national service		
	Conditions treated				
Gastro-intestinal					
	Indigestion	Indigestion and heartburn	Indigestion and reflux		Gastroesophageal reflux disease (GERD)
	Infant colic	Infantile colic	Colic		
	Constipation	Constipation	Constipation		
	Diarrhoea	Diarrhoea	Diarrhoea advice	Diarrhoea	
	Haemorrhoids	Haemorrhoids	Haemorrhoids		Haemorrhoids
	Mouth ulcers/teething	1. Mouth care 2. Mouth ulcers 3. Teething	1. Mouth ulcers advice 2. Teething	Mouth ulcers	
	Oral thrush		Oral thrush	Oral thrush	
		Nappy rash and minor skin conditions	Nappy rash		
Respiratory					
	Hay fever	Allergic rhinitis, hay fever	Hay fever		Allergic rhinitis
	Steroid nasal spray[1]				
	Cough and nasal congestion	Cough			
		Sore throat	Sore throat and tonsillitis		
					Oral aphthous ulcer
Central nervous system					
	Pain	Headache, pain			Headache
		Sprain, strain and muscle pain			Musculoskeletal strains and sprains
		Temperature/fever			
			Back pain		
	Travel sickness				
	Nausea and vomiting				
					Dysmenorrhea

System Condition	Scotland[83]	England[36]	Wales[84]	Northern Ireland[85]	Saskatchewan[55]
Infection					
Fungal infections					
Vaginal candidiasis	Vaginal candidiasis	1 Fungal skin conditions, 2 Vaginal thrush	Vaginal thrush	Vaginal thrush	
Athlete's foot	Athlete's foot	Athlete's foot	Athlete's Foot	Athlete's foot	
		Ringworm Cutaneous candidiasis	Intertrigo/Ringworm		
Viral Infection					
Cold sores	Cold sores	Cold sores	Cold sores	Cold sores	Cold sores
			Chickenpox:		
					Oral thrush
Warts and verrucae	Warts and verrucae	Warts and verrucae	Verruca		
Parasitic infection					
Threadworm	Threadworms	Threadworms	Threadworms	Threadworms	
Head lice	Head lice	Head lice	Head lice	Head lice. All family members with a live infestation to be treated	
Crab/pubic lice	Crab/Pubic lice				
Scabies	Scabies	Scabies	Scabies		
					Infections: Impetigo and Folliculitis
					Acne, mild
					Tinea corporis Infection
					Tinea cruris skin infection
					Tinea pedis infection
Urinary tract disorders					
	Alkalinisation of urine[1]				
Skin					
	Acne		Acne		
	Eczema/allergy	Contact dermatitis or atopic eczema	Dermatitis (acute exacerbation)		Atopic dermatitis
	Range of preparations[1]				
	Shampoos and scalp[2]				
	Boils				
			Dry skin		
			Ingrown toenail advice		
		Insect bite or sting			
		Sunburn			Insect bites
					Superficial bacterial skin

System Condition	Scotland[83]	England[36]	Wales[84]	Northern Ireland[85]	Saskatchewan[55]
					Diaper dermatitis, candida
Vitamins					
	Pregnancy (megaloblastic anaemias – although such prescribing is relatively limited)				
Eyes					
	Anti-infective eye preparations[1] Corticosteroids and other anti-inflammatory preparations[1] Miscellaneous ophthalmic preparations[1]	1. Allergic conjunctivitis 2. Conjunctivitis infective	1. Conjunctivitis (bacterial) 2. Dry eyes		
Ears					
	Ear wax	1. Earache 2. Ear wax		Ear wax	
Homeopathy	(Although such prescribing is relatively limited)				
	Scotland only	Blocked nose			
	Each Health Board has its own Minor Ailments Service list of conditions and formularies. The minor ailments identified in the current (July 2015) Formulary for NHS Ayrshire and Arran are reported here.	Each Clinical Commissioning Group has its own Minor Ailments Service list of conditions and formularies. The minor ailments identified in the current (July 2015) Formulary for Barnsley CCG are reported here.	This list of minor ailments represents the list reported in the publication *All Wales Choose Pharmacy Formulary* published May 2015.	This list of minor ailments represents the current (July 2015) list of Northern Ireland's HSC Business Services Organisation.	This list of minor ailments represents the current (July 2015) list of minor ailment conditions Saskatchewan.

1. In Scotland, in addition to the listed identified minor ailments, a range of specific treatments may also be listed as an additional qualifier for treatment in specific circumstances. Some examples of this approach have been reported in this table, such as steroid nasal spray for nasal allergy under hay fever.
2. Wales and Northern Ireland specify restrictions such as age, advice only and treatment (which includes advice and treatment) in their list of conditions. These restrictions have been reported here. In general, treatments as opposed to eligibility restrictions are reported in the more detailed protocol which supports the minor ailments list and formulary.

Table 15 Analysis of minor ailments service in England 2014

Conditions addressed	**Number of schemes including the condition**	Conditions addressed	**Number of schemes including the condition**	Conditions addressed	**Number of schemes including the condition**
Vaginal thrush	49	Cold/flu symptoms	25	Pruritis	3
Hay fever	47	Pain	21	Sunburn	3
Sore throat	46	Haemorrhoids	19	Mouth care	2
Diarrhoea	44	Oral thrush	19	Soft tissue injury	1
Threadworms	43	Allergic rhinitis	17	Crab lice	1
Constipation	42	Sprain, strain and muscle pain	13	Cracked/sore nipples	1
Temperature/fever	41	Ear wax	13	Gout	1
Athlete's foot	39	Scabies	10	Migraine	1
Conjunctivitis	38	Colic	9	Minor injuries	1
Head lice	37	Urinary tract infection	8	Scalp disorders	1
Indigestion	37	Impetigo	6	Thrush in breastfeeding women	1
Cough	36	Dry skin	6	Travel sickness	1
Cold sores	36	Fungal and yeast infections	5		
Nasal congestion	33	Period pain	5		
Nappy rash	32	Toothache	5		
Insect bites and stings	32	Acne	5		
Mouth ulcers	30	Chickenpox	5		
Headache	30	Dry eyes	4		
Earache	30	Ringworm	4		
Dermatitis/eczema	29	Upper respiratory tract viral infection	4		
Warts and verrucae	28	Vomiting	3		
Teething	28	Burns, scalds or cuts (minor)	3		
Heartburn	27	Dandruff	3		
Cystitis	25	Fever after child immunisation	3		
Total number of conditions					60

Data from the Pharmacy Service Negotiating Committee (PSNC) 2015.[86]

Table 16 Minor ailments drug formulary

Country	Protocol/document		Publication
Scotland	MAS National Formulary (Part 1)[87]		Current July 2015
Scotland	MAS National Formulary (Part 2)[88]		Current July 2015
Scotland	Number of dispensed items and cost of dispensed items to March 2015[89]	Cost per item	Current March 2015
England (Barnsley)	Minor Ailments Scheme Formulary (by condition) Appendix 1[32]		Produced October 2013 Review March 2014
England (Barnsley) Drug Cost Inc. VAT	Minor Ailments Scheme Formulary (by drug) and reimbursement Appendix 2[32]	Drug cost incl. VAT	Produced Oct 2013 Reviewed March 2014
Wales	All Wales Choose Pharmacy[38]		May 2015
Northern Ireland	Maximum two products per consultation. Please note only GSL or P medicines can be supplied[90]		Current July 2015
Northern Ireland	Drug Tariff sections – Minor Ailments August 2015[91]	Minor Ailments Part 1b	Current August 2015

Table 17 Schedule I: drugs appropriate for prescription by pharmacists for specified conditions, Saskatchewan

System	Condition	Drug class	Specific Rx Drug
Central nervous system	Headache and migraine	NSAIDs	ibuprofen all strengths naproxen all strengths diclofenac
		Triptans (Appropriate for self-diagnosis of recurrences, but initial diagnosis should be made by physician)	almotriptan naratriptan rizatriptan sumatriptan zolmitriptan eletriptan (non-formulary) frovatriptan (non-formulary)
Eyes, ears, oral	Cold sore	Antivirals (topical, oral)	acyclovir cr/oint/oral famciclovir valacyclovir
	Mouth ulceration (mild)	Corticosteroids (dental)	triamcinolone dental paste
	Oral thrush	Antifungals (oral)	nystatin drops
Dermatology	Acne (mild – moderate)	Benzoyl peroxide	benzoyl peroxide (BP) up to 10 %
		Antibiotics (topical)	clindamycin phosphate clindamycin/BP clindamycin/tretinoin erythromycin/BP erythromycin/ethyl alcohol/avobenzone/octinoxate erythromycin/tretinoin
		Retinoids	adapalene cr 0.1%, 0.3%; gel 0.1% adapalene 0.1%/BP 2.5% tazarotene 0.05%,0.1% cr or gel tretinoin cr or gel all strengths tretinoin/avobenzone/octinoxate cr all strengths
	Atopic dermatitis (mild – moderate)	Corticosteroids, low – moderate potency (topical)	hydrocortisone cream 1 %, 2.5 % desonide 0.05 % betamethasone valerate clobetasal butyrate diflucortolone valerate hydrocortisone valerate mometasone furoate triamcinolone acetate
	Diaper rash	Antifungal/corticosteroids (topical)	clotrimazole hydrocortisone 1 % cr/oint
	Insect bites	Mild corticosteroids	hydrocortisone 1 % cr/oint
	Skin infections (bacterial)	Antibiotics (topical)	fucidic acid cr/oint mupirocin cr/oint
	Tinea infections (athlete's foot, jock itch, ringworm)	Antifungal (topical)	ketaconazole 2 % cr
Gastrointestinal	Dyspepsia/ gastroesophageal reflux disease	H2 receptor antagonists	cimetidine 300, 400, 600 mg famotidine 40 mg nizatadine 150, 300 mg ranitidine 150, 300 mg
		PPIs	esomeprazole 20, 40 mg lansoprazole 15, 30 mg omeprazole 10, 20 mg pantoprazole 40 mg

			rabeprazole 10, 20 mg
	Hemorrhoids	Corticosteroid combinations (rectal)	HC/zinc sulphate HC/zinc sulfate, pramoxine
Genitourinary	Dysmenorrhea	NSAIDs	celecoxib diclofenac ketoprofen mefenamic acid naproxen sodium
Musculoskeletal	Pain	NSAIDS	diclofenac diclofenac/misoprostol naproxen
		Cox-2 inhibitors	celecoxib meloxicam
Respiratory	Allergic rhinitis	Intranasal antihistamine	levocabastine
		Intranasal corticosteroids	beclomethasone mometasone furoate fluticasone proprionate

Annex 5: Information and communications technology checklists

Table 18 **Electronic database establishment and testing checklist for the Minor Ailments Scheme (eMAS) Scotland**

Checklist for the Scotland Minor Ailments Scheme electronic database eMAS	Checklist for the Scotland Minor Ailments Scheme electronic database eMAS –April 2015	Test location
Provides names of the supplier and supports for the Minor Ailments Scheme electronic database	1. My PMR supplier (or Head Office Help Desk for multiples) is: 2. The NSS ePharmacy Help Desk is: 3. My local Pharmacy Practitioner Champion is: 4. My local Information Management and Technology (IM&T) Facilitator (for IM&T queries) is: 5. My local contact for ordering MAS stationery is: 6. My contact details for the local out-of-hours professional to professional hub is: 7. The new community pharmacy contract website is:	1. Location specific 2. (for technical queries) 0131 275 6600 PSDHelp@psd.csa.scot.nhs.uk 3. Location specific 4. Location specific 5. Location specific 6. Location specific 7. http://www.show.scot.nhs.uk/communitypharmacy
1. N3 connection working	The pharmacist tests to check if the N3 connection is up and running by accessing the Community Pharmacy website, or sends an e-mail. If the N3 connection does not work or seems unduly slow, support can be obtained from the NSS ePharmacy Help Desk.	N3 is the national broadband network for the National Health Service (NHS), connecting all NHS locations and employees across the country
2. Password for the digital certificate received	A password is provided by Scottish General Practice Committee (SPGC) to allow access to relevant digital certificate received from SPGC. This authenticates and protects all electronic messages to and from the PMR system from the ePharmacy Store.	The distribution of passwords is linked to the roll-out of each PMR systems supplier's software.
3. Appropriate hardware in place to support ePharmacy requirements	The appropriate computer minimum specification is Windows 2000 or Windows XP. At least a Pentium 350MHz processor; 256MB of memory; 4GB hard drive; a back-up device for backing up PMR and adapter databases. A network interface card (required for N3 connection) A dual-bin mono laser printer that can take multi-sized	

	paper.	
4. eMAS software ordered	eMAS software supplied by PMR system supplier	
5. eMAS software loaded, and training provided	eMAS software loaded, and training provided by PMR suppliers. Each system supplier has their own process in place, e.g. face-to-face, web-based or telephone support.	
6. Dual-bin printer ordered and installed	Dual-bin printer ordered and installed to print the CP2 registration and consultation forms for eMAS. A payment of £450 per contractor was provided towards upgrading PMR system hardware.	
7. eMAS stationery received/ordered (CP2, CP1 and A4 forms)	eMAS stationery (CP2, CP1 and A4 forms). The CP2 form is used for both registering and consulting for the MAS. Your NHS Board will keep supplies of all stationery forms and will send you an initial batch.	The local NHS Board supplies all stationery forms. The CP1 and A4 forms are for manual registrations and should only be used in exceptional circumstances. Manual registration should only take place if you are unable to print the CP2 forms. If you ever have to use the manual CP1 and A4 forms you must notify the NSS ePharmacy Help Desk in advance.
8. Test registration and prescriptions messages sent	Test registration and prescriptions messages sent. Once your software has been loaded and activated you should complete a test registration and consultation. The following details should be used for the patient in the test registration: Forename – Mickey; Surname – Mouse; Address: your pharmacy's address; Postcode: your pharmacy's postcode; Sex: male; Date of birth: 1/1/2000. This will return a 'pending' registration result. You should then proceed to perform a consultation for 'advice only' using Mickey Mouse. The test registration and advice consultation should be printed on the CP2 forms if they are available in your pharmacy; if the CP2 forms are not available, the test registration should be printed on plain paper. The test registration and advice consultation forms should be submitted with the proforma when claiming eMAS funding (See point 9). Your PMR systems supplier should ensure that this is completed. Your IM&T facilitator can also help you with this if required.	

9. eMAS funding claimed	eMAS funding claimed: Funding of £500 as a further contribution to IM&T infrastructure requirements associated with the new contract is available on successful loading and testing of eMAS software and hardware.	On completion of a test registration and consultation for eMAS, the proforma attached to PCA(P) Circular (2005) 19 should be completed and forwarded to your NHS Board, which in turn will send it to NSS for payment purposes. You can access and print another proforma from the eMAS website.
10. eMAS awareness session attended (optional)	eMAS awareness session attended (optional)	Your NHS Board should be running an eMAS awareness session/s. You and any appropriate support staff should attend your local session. Your pharmacy champion and IM&T facilitator will also be able to advise you on eMAS.
11. eMAS training undertaken (optional)	eMAS training undertake: NHS Education for Scotland NES Pharmacy is running an additional national day on eMAS (12 March). In addition a CD Rom will be available through the NES eMAS Implementation pack.	
12. eMAS implementation pack completed (optional)	eMAS implementation pack completed: NES Pharmacy will be distributing an eMAS implementation pack to your pharmacy.	12. eMAS implementation pack completed: NES Pharmacy will be distributing an eMAS implementation pack to your pharmacy. You should familiarise yourself with its contents.

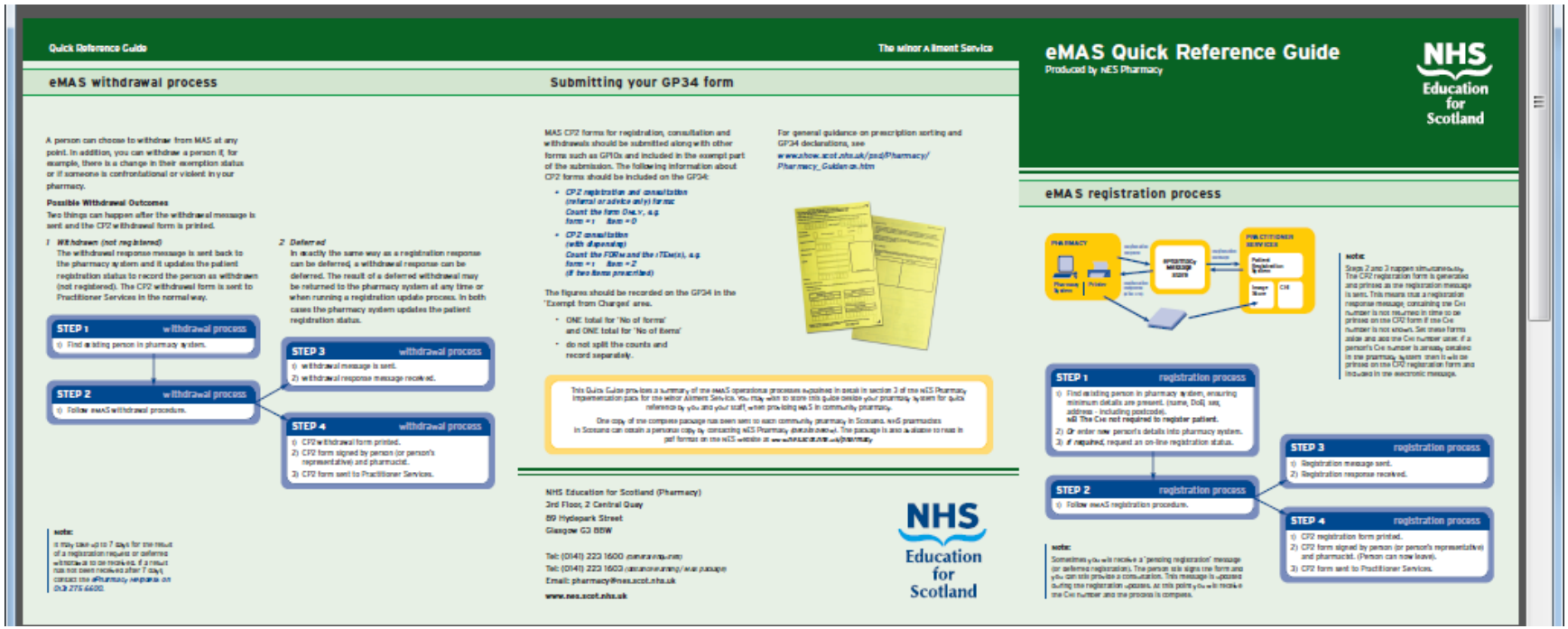


Figure 8 **Quick reference guide for registration on the Minor Ailments Scheme, Scotland**

Table 19 **Hardware and software requirements for the common ailments service Wales**

	Minimum requirement for PC Version 2.1
1. Operating system	Windows 8 Windows 7 Windows Vista with latest service pack Windows XP with latest service pack
2. Computer screen size	Any screen size. A laptop or server/monitor is acceptable. However, if a laptop is used, additional security measures must be considered (locking consultation door etc.)
3. Computer screen resolution	1280 x 1024
4. Keyboard	Any English language compatible keyboard keyboard
5. Mouse	Any
6. RAM	Minimum 2GB
7. Processor	Core 2 Duo 2.6Ghz or equivalent CPU
8. Hard disk	SATA, any size, speed 7200 RPM
9. Networking	Wireless or LAN connection connectivity to Internet. A wired connection is the preferred options, as it is more reliable.
10. Browser	Google Chrome: latest version Internet Explorer: IE7 – 10 Firefox: latest version Installation of browser add-ons must be avoided.
11. PDF	Adobe Acrobat Reader 10 and 11
12. Printer	A laser printer with printing capabilities to an A4-sized printer either wirelessly or through cable connection. The printer is not required to be located in the consultation room. However, one should be available if requested by the individual pharmacy.
13. Printer requirements	Laser printer disposal. An appropriate disposal policy must be in place to ensure that there is no residual Polymer Innovations, Inc. PII left on the device. This must include secure erasure of data from the internal disk (if present) and also removal of any images from the drum.
14. Trays	A minimum of one tray is required on the printer. (The printer should have the capability to add an additional tray at a later stage if required.)
15. Patching	There must be an arrangement in place that ensures the client device is kept up to date with patches. All high-priority and security patches for the operating system are to be applied within two weeks of availability; all others must be applied within four weeks. Updates of other software such as Adobe reader, Java, Flash etc. must be installed within two weeks of availability.
16. Antivirus	There must be an arrangement in place that ensures the client device is installed with suitable antivirus software and

	Minimum requirement for PC Version 2.1
	is kept up to date with the latest versions of signature files.
17. Software firewall	A software firewall must be installed on the device, which blocks all inbound traffic by default.
18. Encryption	The client device must be protected by an encryption solution. The solution must be validated to FIPS 140-2 using AES encryption. Windows BitLocker is acceptable, provided the appropriate registry key has been set. No toolbars or browser adds-ons to be used.
19. Additional software	No unauthorised software is to be installed on the client device. If an individual pharmacy requires additional software to be installed, a process must be in place which will record all requests for software installation and which allows for the formal approval or rejection of such requests. The formal request process will include that a risk assessment is conducted prior to installing any software. The pharmacy PMR system should be available. E-mail access should be available (Outlook). Office suite, including Word and Excel, should be available if requested by the pharmacy. A process must be in place to request additional software to be installed on the device.
20. Local administrator password	The local administrator password should be changed from the default setting during the installation phase, and should not be held in the pharmacy.
21. Other	In terms of installation requirements, additional network access points (e.g. additional cabling where required) to be managed through existing supplier support arrangements with the contractor (and payment from within £1,000 IM&T allocation for Common Ailment Scheme (CAS) hardware.

Annex 6: Contracts and agreements

Table 20 The Community Pharmacy Assurance framework and terms in the service level agreement for the MAS, England

Community Pharmacy Assurance Framework	Service Level Agreement terms[92]
Part 1 – pre-visit questionnaire	Addresses the policies or strategic objectives of the commissioner e.g. provision of treatment for head lice
Section used by the commissioner during a monitoring visit covering the six essential and four advanced services	Purpose, e.g. to ensure that persons resident in the locality will have access to treatment. Period of service – stated
Commissioner's assessment process: Consultation area is: • clearly designated • distinct from the general public areas of the pharmacy, and • an area where the patients and registered pharmacist can sit down together and cannot be overheard. The monitoring visit also assesses that a dataset containing the data specified in the contract is captured and retained; that prior written consent from the patient to receive the service is obtained, and that there are appropriate standard operating procedures for dispensing, repeat dispensing and support for self-care.	**Availability of the service with regard to**: geographical area, eligibility, criteria for inclusion • the need(s) to be addressed, the characteristics of the target population, the desired outcome, prerequisites for providing the service (premises standards, equipment, arrangements for disposal of any waste, accreditation of the pharmacist and/or staff, patient consent, arrangements for chaperones); • the service description (detail of the service – this is the most critical section of the agreement because it describes the services and the manner in which those services are to be delivered). The information on the services must be accurate and must contain detailed specifications of exactly what is being delivered (which can be included as an appendix, if preferred); staff to provide the service, screening criteria, diagnostic tests, signposting, payment, follow-up; • pharmacy performance and monitoring (performance management, patient satisfaction/outcomes, volume measurements, quality measurements. Infection control measures are likely to be included, particularly if the service includes any breach of the skin); • commissioner monitoring, sanctions, incident management, disaster recovery; claims for payment, amount, frequency, method of claiming/documentary evidence, payment period, marketing and communications, promotion of the service, communications; • termination (this typically covers the following key topics: indemnities, exclusions, third part claims, force majeure, and remedies for breaches).

NORTHERN IRELAND
MINOR AILMENTS SERVICE
CONTRACT – 2011

TO BE COMPLETED BY THE PHARMACEUTICAL CONTRACTOR

Please note:

All pharmacists and pharmacy support staff dealing with the Minor Ailments Service must be trained in the Minor Ailments process and work in compliance with the service specification and a written Standard Operating Procedure.

All patients referred/presenting to the pharmacy with a condition covered in the service must be assessed by the pharmacist(s) or trained pharmacy support staff as detailed in the pharmacy's Standard Operating Procedures, for inclusion in this service. The pharmacist will give appropriate advice and/or treatment from the scheme formulary or, if appropriate, referral to the GP. All patients will be advised on how to alleviate their symptoms.

The pharmacist must fully and legibly complete all paperwork. The pharmacist must sign both the PV1 form and the consultation form. Vouchers must be returned to the BSO at the end of the calendar month to which they apply. Pharmacists must retain a copy of the consultation sheet.

Pharmacist(s) must ensure that they operate in accordance with all Acts of Parliament, statutory regulations or other laws, recommendations, guidance, formulary updates or practices as may affect the provision of services specified under the agreement.

Indemnities

Any litigation arising from an accident or negligence on behalf of the provider is the responsibility of the provider who will meet the costs and claim of compensation at no cost to the purchaser.

Information Requests

The information gathered will be used to evaluate the scheme. All documentation is open to evaluation at any point.

Promotion of the Service

Providers of the service must promote it in accordance with all relevant standards through prominent display of the poster and by providing leaflets explaining the service.

Period of contract

This contract covers the period from date of receipt of contract and it may be terminated by either the purchaser or provider by giving notice of one week.

Fees

The fees to be paid for the service will be issued under separate cover and information on them will be available by contacting the Business Services Organisation.

Signing of the Agreement

This document comprises of the agreement between the Health and Social Service Board (purchaser) and the pharmacy contractor (provider).

I would like my pharmacy to participate in the above scheme.

The pharmacist(s) and pharmacy support staff have completed the training required to provide the service and I undertake to ensure the competence of staff in the ongoing delivery of the service. I agree to participate in all aspects of provision of the service as detailed in the service specification from which a Standard Operating Procedure has been developed.

Name of Contractor:
Pharmacy Address:
Contractor No. _____
E-mail:
Tel. No: **Date:** _____

Annex 7: Examples of pharmacy-based services provided in England between 2005–6 and 2013–14

Table 21 List of enhanced services which may be commissioned from community pharmacies, England 2005–6 and 2013–14

Enhanced services[29]	Year	2005–6	2006–7	2007–8	2008–9	2009–10	2010–11	2011–12	2012–13	2013–14
Anticoagulant monitoring	2005–13	21	67	54	69	88	103	120	102	37
Home care	2005–13	1,248	1,115	1,057	851	802	647	596	528	87
Disease-specific medicines management	2005–13	118	286	211	294	338	252	260	209	1
Home delivery	2005–13	1,088	1,175	619	802	810	960	614	380	294
Medication review (not Medicine Use Review)	2005–13	747	1,997	2,147	2,332	2,357	2,383	2,612	2,633	537
Medicine assessment and compliance support	2005–13	755	329	341	515	552	691	482	621	336
Medicines management in domiciliary care										
Minor ailments scheme	**2005–13**	**2,067**	**2,416**	**2,705**	**3,238**	**3,741**	**3,686**	**3,537**	**3,440**	**1,579**
Needle and syringe exchange	2005–13	1,061	1,537	1,692	1,969	2,048	2,283	2,289	2,122	380
On-demand availability of specialist drugs	2005–13	418	722	979	958	924	1,102	925	824	529
Out of hours	2005–13	1,432	1,238	1,130	1,089	893	1,032	1,182	1,222	414
Patient Group Direction Service+	2005–13	2,147	2,038	2,623	3,179	3,085	3,552	3,483	3,342	1,068
Prescriber Support Service+	2005–13	55	70	138	144	84	13	56	57	111
Schools Service	2005–8, 2012–13	3	7	24	0	0	0	0	2	0
Screening Service+	2005–13	154	114	388	1,011	1,808	1,737	1,417	1,258	254
Supplementary Prescribing Service+	2005–13	20	101	54	124	1	58	1	1	0
Stop smoking++	2005–13	2,552	3,641	4,593	4,833	5,612	6,104	5,620	5,747	771
Supervised administration	2005–13	2,563	3,306	4,146	4,706	5,215	5,385	5,601	5,359	678
Gluten-free food supply	2005–13	281	391	387	349	481	474	337	359	179
Language access	2005–13	220	176	263	495	564	492	145	274	0
Independent prescribing*	2008–13				12	23	8	6	17	
Number of community pharmacies at 31 March		9,872	10,133	10,291	10,475	10,691	10,951	11,236	11,495	11,647

* Independent prescribing was not separately identified until 2008–9

References

1. Wikipedia. (2015) *Health care*. Retrieved https://en.wikipedia.org/wiki/Health_care

2. Department of Health. (2000) The NHS Plan: a plan for investment, a plan for reform. Department of Health. http://pns.dgs.pt/files/2010/03/pnsuk1.pdf
http://webarchive.nationalarchives.gov.uk/+/www.dh.gov.uk/en/publicationsandstatistics/publications/publicationspolicyandguidance/dh_4002960.

3. Department of Health. (2006) *Implementing care closer to home – providing convenient quality care for patients A national framework for Pharmacists with Special Interests*. London: Department of Health. https://www.pcc-cic.org.uk/sites/default/files/articles/attachments/phwsi_framework.pdf

4. Community Pharmacy NHS Scotland. (2015) *Minor Ailment Service: Forth Valley Minor Ailment Service Formulary (updated June 2015), MAS Chloramphenicol Eye Drops PGD (updated June 2015), MAS Fluconazole PGD (updated June 2015), NHS Forth Valley Head Lice Policy (updated 14 January 2015) Publicity Material* Retrieved http://www.communitypharmacy.scot.nhs.uk/nhs_boards/NHS_Forth_Valley/redesign/core_services/mas.html

5. Community Pharmacy NHS Scotland. (2015) *Acute Medication Service*. Retrieved 12/10/2015 http://www.communitypharmacy.scot.nhs.uk/nhs_boards/NHS_Forth_Valley/redesign/core_services/ams.html

6. Community Pharmacy NHS Scotland. (2015) *Chronic Medication Service*. Retrieved 12/10/2015 http://www.communitypharmacy.scot.nhs.uk/nhs_boards/NHS_Forth_Valley/redesign/core_services/cms.html

7. Community Pharmacy NHS Scotland. (2015) *Public Health Service*. Retrieved 12/10/2015 http://www.communitypharmacy.scot.nhs.uk/nhs_boards/NHS_Forth_Valley/redesign/core_services/phs.html

8. Community Pharmacy NHS Scotland. (2015) *Stoma service*. Retrieved 12/10/2015 http://www.communitypharmacy.scot.nhs.uk/nhs_boards/NHS_Forth_Valley/redesign/core_services/stoma.html

9. Community Pharmacy NHS Scotland. (2015) *Unscheduled Care*. Retrieved 12/10/2015 http://www.communitypharmacy.scot.nhs.uk/nhs_boards/NHS_Forth_Valley/redesign/core_services/unscheduled_care.html

10. Community Pharmacy NHS Scotland. (2015) *Gluten-Free Food (GFF) Service*. Retrieved 12/10/2015 http://www.communitypharmacy.scot.nhs.uk/nhs_boards/NHS_Forth_Valley/redesign/core_services/gluten_free.html

11. Pillay N, Tisman A, Kent T and Gregson J. (2010) The economic burden of minor ailments on the national health service (NHS) in the United Kingdom *Selfcare*, 1(3): 105-116.

12. Royal Pharmaceutical Society of Great Britain. (Unstated) *Better management of minor ailments using the pharmacist*. Retrieved 12/10/2015 http://faculty.ksu.edu.sa/hisham/Documents/RPSGB_Files_/1/bettmanminail.pdf

13. Bednall R, McRobbie D, Duncan J and Williams D. (2003) Identification of patients attending accident and emergency who may be suitable for treatment by a pharmacist. *Family Practice*, 20(1): 54-57.

14. Pumtong S, Boardman H and C. A. (2011) A multi-method evaluation of the Pharmacy First Minor Ailment's scheme. *International Journal of Clinical Pharmcology*, 33(3): 573-581. http://www.ncbi.nlm.nih.gov/pubmed/21526411

15. Department of Health. (2000) Pharmacy in the future: implementing the NHS Plan. Department of Health. http://webarchive.nationalarchives.gov.uk/+/www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4005917

16. Department of Health. (2001) Primary care, general practice and the NHS Plan: information for GPs, nurses, other health professionals and staff working in primary care in England. Department of Health. http://webarchive.nationalarchives.gov.uk/20100408023218/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4006192

17. Department of Health. (2001) The NHS Plan: an action guide for nurses, midwives and health visitors. Department of Health. http://webarchive.nationalarchives.gov.uk/20100408023218/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4007776

18. Department of Health. (2001) Meeting the challenge: a strategy for the allied health professions. Department of Health. http://webarchive.nationalarchives.gov.uk/20100408023218/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4025477

19. Department of Health. (2000) Modernising NHS dentistry - Implementing the NHS plan. Department of Health. http://webarchive.nationalarchives.gov.uk/20100408023218/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4002931

20. General Pharamcutical Council. (2015) *Pharmacist independent prescriber*. Retrieved 12/10/2015 https://www.pharmacyregulation.org/education/pharmacist-independent-prescriber

21. Health and Social Care Information Centre. (2015) *The national provider of information, data and IT systems for health and social care*. Retrieved 12/10/2015 http://systems.hscic.gov.uk/

22. industry Ws-m. *What is Self-Care?* Retrieved 09/02/2016 http://www.wsmi.org/about-self-care-and-self-medication/what-is-self-care/

23. Community Pharmacy Scotland Enabling the Delivery of Care. (2015) *Minor Ailment Service - Specification* Retrieved 12/10/2015 http://www.communitypharmacyscotland.org.uk/nhs-care-services/services/minor-ailment-service/mas-specification/

24. Health & Social Care Information Centre. *Joint Strategic Needs Assessment*. Retrieved 09/11/2015 http://www.hscic.gov.uk/jsna

25. Wikipedia. *Pharmaceutical Services Negotiating Committee*. Retrieved https://en.wikipedia.org/wiki/Pharmaceutical_Services_Negotiating_Committee

26. Local Pharmaceutical Committee. *Local Pharmaceutical Committees ONline*. Retrieved 12/10/2014 http://lpc-online.org.uk/

27. Pharmaceutical Services Negotiating Committee. (2015) *PSNC Briefing 006/15: Analysis of Minor Ailments Services in England*. http://psnc.org.uk/our-news/psnc-statement-minor-ailments-service-discussions/

28. NHS Scotland. (2015) *Practitioner Services Enabling Primary Care*. Retrieved 12/10/2015 http://www.psd.scot.nhs.uk/pharmacists/

29. Prescribing and Primary Care. (2014) *General Pharmaceutical Services in England - 2004-05 to 2013-14* General Pharmaceutical Services in England. http://www.hscic.gov.uk/searchcatalogue?productid=16440&q=title%3a%22General+Pharmaceutical+Services+in+England%22&topics=1%2fPrimary+care+services%2fCommunity+pharmacy+services&sort=Relevance&size=10&page=1%20-%20top and http://www.hscic.gov.uk/catalogue/PUB15933/gen-pharm-eng-201314-Report.pdf

30. Welsh Government. (2014) *Community pharmacy services in Wales, 2013-14*.Vol. SDR193/2014 Cardiff. http://gov.wales/docs/statistics/2014/141112-community-pharmacy-services-2013-14-en.pdf

31. Organisation BS. *Number of Pharmacies, Pharmacists & Appliance Suppliers (1985-2014)* Retrieved http://www.hscbusiness.hscni.net/services/1806.htm

32. NHS Gloucestershire Clinical Commissioning Group. (2015) *Appendix 6 – Declaration of Competence*. Retrieved 12/10/2015 http://psnc.org.uk/gloucestershire-lpc/wp-content/uploads/sites/64/2013/07/Appendix-6-Declaration-of-Competence.pdf

33. NHS Education for Scotland. (Unstated) Responding to Minor Ailments. In: Scotland N, editor. *Pharmacy* http://www.nes.scot.nhs.uk/media/1912224/minor_ailments_2012_web_pdf.pdf

34. NHS Education for Scotland. (Unstated) The minor ailments service : implementation package: NHS Education for Scotland http://www.nes.scot.nhs.uk/education-and-training/by-discipline/pharmacy/about-nes-pharmacy/educational-resources/resources-by-topic/core-nhs-services/community-pharmacy-contract/minor-ailments-service/the-minor-ailments-service-implementation-package.aspx

35. NHS Education for Scotland. (2015) *The Minor Ailment Scheme eMAS registration process*. Pharmacy PbN. http://www.nes.scot.nhs.uk/media/426148/mas_quick_ref_guide.pdf

36. Staniforth R. (2014) Community Pharmacy Minor Ailments Scheme - Locally Commissioned Pharmacy Service. Barnsley Clinical Commissioning Group http://psnc.org.uk/wp-content/uploads/2014/10/17219-Service-Spec-2013-14-Additional-Forms.pdf

37. Centre for Pharmacy Postgraduate Education. (2009) Minor ailment services: A starting point for pharmacists https://www.cppe.ac.uk/learningdocuments/pdfs/minor_ailments_mar09.pdf

38. All Wales Medicines Strategy Group. (2015) All Wales Choose Pharmacy Formulary http://www.awmsg.org/docs/awmsg/medman/All%20Wales%20Choose%20Pharmacy%20Formulary.pdf

39. Wales Centre for Pharmacy Professional Education. (2015) *Course code: 2MA - Access restricted* Retrieved https://www.wcppe.org.uk/

40. Wales Centre for Pharmacy Professional Education. (2015) *Common Ailments Scheme* Retrieved 10/12/2015 http://www.wcppe.org.uk/learning/learning-resources/common-ailments-scheme

41. James L Price L. Choose pharmacy Version 2.0 training Guide.

42. Kennedy E and Barry J. (2008) Minor Ailments. In: Lloyd F editor. *Continuing Professional Development*. Belfast: Queen's University Belfast https://www.nicpld.org/courses/download/assets/minorailments2013.pdf

43. Not stated. (2015) *MAS Formulary Version 4.2 Created 01/06/15*. Retrieved http://www.hscbusiness.hscni.net/2055.htm http://www.hscbusiness.hscni.net/pdf/Formulary_MA_version4.2.pdf

44. International Epidemiological Association. (2008) *A Dictionary of Epidemiology*. New York: Oxford University Press.

45. NHS Scotland. (2015) *Community Pharmacy Core Services* Retrieved 12/10/2015 http://www.communitypharmacy.scot.nhs.uk/core_services.html

46. Wales Centre for Pharmacy Progessional Education. (2015) *Common Ailments Scheme Course Code CoAiSc*. Retrieved 12/10/2015 http://www.wcppe.org.uk/learning/learning-resources/common-ailments-scheme

47. Scottish Executive. (Not stated) The Right Medicine A strategy for pharmaceuticalcare in Scotland http://www.gov.scot/resource/doc/158742/0043086.pdf

48. Pharmaceutical Services Negotiating Committee. (2015) *Contract and IT Community Pharmacy Contractual Framework*. Retrieved 12/10/2015 http://psnc.org.uk/contract-it/the-pharmacy-contract/

49. Black LA. (2011) Research and Information Service Briefing Paper. In: Assembly NI, editor. *Paper 159/11 NIAR589-11*. Belfast http://www.niassembly.gov.uk/globalassets/documents/raise/publications/2011/health/15911.pdf

50. Sinn Fein West Tryone. (2008) Sinn Féin welcome Health Minister's commitment to revisit Minor Ailments Scheme In: News Archives for November, editor http://www.westtyronesinnfein.com/news/2008/11/

51. (2008) Maintain minor ailment scheme urges Sinn Fein. *Belfast Telegraph Travel* http://www.belfasttelegraph.co.uk/news/politics/maintain-minor-ailment-scheme-urges-sinn-fein-28442416.html

52. McKenna G. (2008) End of NI pharmacy deal swamps practices http://www.gponline.com/end-ni-pharmacy-deal-swamps-practices/article/844618

53. BBC Northern Ireland. (2010) Minor ailments scheme facing cutbacks http://www.bbc.com/news/uk-northern-ireland-11622111

54. Black LA. (2011) The Pharmaceutical List and the Northern Ireland Drug Tariff. Assembly NI.

55. medSask University of Saskatchewan. (2015) *Guideline updates (last updated August 19, 2015)*. Retrieved 12/10/2015 http://medsask.usask.ca/professional/guidelines/

56. Governement of Sachatchwan. (2015) *Pharmaceutical Information Program*. Retrieved 12/10/2015 http://www.publications.gov.sk.ca/details.cfm?p=11692

57. Alberta College of Pharmacists. (2015) *Additional prescribing authorization*. Retrieved 12/10/2015 https://pharmacists.ab.ca/additional-prescribing-authorization

58. Pumtong S, Boardman HF and Anderson CW. (2008) Pharmacists' perspectives on the Pharmacy First Minor Ailments Scheme. *International Journal of Pharmacy Practice*, 16(2): 73-80.

59. Baqir W, Learoyd T, Sim A and Todd A. (2011) Cost analysis of a community pharmacy 'minor ailment scheme' across three primary care trusts in the North East of England. *Journal of Public Health*, 33(4): 551-555.

60. Fielding S, Porteous T, Ferguson J, Maskrey V, Blyth A, Paudyal V *et al.* (2015) Estimating the burden of minor ailment consultations in general practices and emergency departments through retrospective review of routine data in North East Scotland *Family Practice*, 32(2)(2): 165 - 172.

61. Bojkea J, Gravellea H, Hassellb K and Whittington Z. (2003) Increasing patient choice in primary care: themanagement of minor ailments. *Health Economics*, 13(1): 73-86.

62. Pharmacy Research UK. (2014) *Community pharmacy management of minor illness MINA study.* Pharmacy Research UK. London.

63. Paudyal V, Watson MC, Sach T, Porteous T, Bond CM, Wright D J *et al.* (2013) Are pharmacy-based minor ailment schemes a substitute for other service providers? A systematic review *British Journal of General Practice*, 63(612): e472-e481.

64. Scotland iNNS. (2015) *Prescribing & Medicines: Minor Ailments Service (MAS) Financial Year 2014/15 Publication date – 30 June 2015*. A National Statistics Publication for Scotland. Scotland.

http://www.isdscotland.org/Health-Topics/Prescribing-and-Medicines/Publications/2015-06-30/2015-06-30-Prescribing-MinorAilmentsService-Report.pdf?

65. Irish Pharmacy Union. (2014) *Towards Equality: A Pharmacy-Based Minor Ailment Scheme for GMS Patients - Pre-Budget Submission from the Irish Pharmacy Union Dublin*.

66. South Manchester Clinical Commissioning Group. (2012) Community Pharmacy: Minor Ailments Scheme (MAS). . In: Manchester: Clinical Commissioning Group South Manchester, editor

67. Dunnigan M. (2014) Exaggerated estimates of GP consultation rates may discourage GP recruitment. *British Medical Journal*, 349(g6245).

68. ASMI - Australian Self-medication Industry Inc. (2010) *Health Reform Roadmap Could Benefit from Minor Ailments Initiative (ASMI - Australian Self-medication Industry Inc)*. http://article.wn.com/view/2014/07/07/Health_Reform_Roadmap_Could_Benefit_from_Minor_Ailments_Init/

69. Hassell K, Whittington Z and J. C. (2001) Managing demand: transfer of management of self-limiting conditions from general practice to community pharmacies. *BMJ*, 323: 146 - 147.

70. Paudyal V. (2011) Pharmacy assisted patient self care of minor ailments : a chronological review of UK health policy documents and key events 1997-2010. *Health Policy*, 101 (3): 253-259

71. Buxton A. (2013) *Community Pharmacy: local healthcare*. http://psnc.org.uk/wp-content/uploads/2013/08/Community-pharmacy-presentation-Aug-2013.pptx

72. Pharmaceutical Services Negotiating Committee. (2013) *PSNC Briefing 097/13: Guide to the Market Entry Regulations*. Retrieved 02/09/2015 http://psnc.org.uk/wp-content/uploads/2013/10/PSNC-Briefing-097.13-Market-Entry-Regulations.pdf

73. Blenkinsopp A, Holmes J, Mitra G and Pringle M. (2009 ') Managing minor ailments: Evaluation of a local intervention in supported self-care. *International Journal of Pharmacy Practice*, 17(S2): B64-B65.

74. Rennie L, Porteousb T and Ryan M. (2012) Preferences for Managing Symptoms of Differing Severity: A Discrete Choice Experiment. *Value in Health*, 15: 1069 - 1076.

75. Inch J, Watson MC, Cleland J, Fielding S, Burr J, Barton G *et al.* (2013) How are common minor ailments managed in community pharmacies? The MINA Study. *International Journal of Pharmacy Practice, 21, 19-20.*, 21: 19-20.

76. Welle-Nilsen LK, Morken T, Hunskaar S and Granas AG. (2011) Minor ailments in out-of-hours primary care: an observational study *Scandanavian Journal of Primary Health Care*, 29: 39 - 44.

77. Proprietary Association of Great Britain. (2009) *Making the Case for the Self Care of Minor Ailments*. http://www.pagb.co.uk/information/PDFs/Minorailmentsresearch09.pdf

78. Tannenbaum C and Tsuyuki RT. (2013) The expanding scope of pharmacists' practice: implications for physicians *Canadian Medical Association Journal*.

79. Cullen P. (2015) Doctors oppose pharmacists treating ailments for medical-card holders *The Irish Times*, 29/02/2015. Retrieved

80. Jones C. Implementing a community pharmacy minor ailment scheme A practical toolkit for primary care organisations and health professionals. In: Association TNP, editor http://eppi.ioe.ac.uk/eppireviewer4/getbin.aspx?U=592892e1-680b-4331-8611-10dee822406d&ID=3187&DID=131939

81. Health and Social Care Board. (2010) Community Pharmacy Minor Ailment Service: supporting self care http://www.hscbusiness.hscni.net/pdf/MAS_Service_Spec_NOV10.pdf

82. Board HSC. (2010) Community Pharamacy Minor Ailments Service - Supporting Self-Care Board HSC. http://www.hscbusiness.hscni.net/pdf/MAS_Service_Spec_NOV10.pdf

83. NHS Ayrshire and Arran. (2015) Local Minor Ailment Service Formulary. In: Pharmacy and Prescribing Team, editor

84. Not stated. (2015) Evaluation of the Choose Pharmacy common ailments service: Final report. Government GSRW. http://gov.wales/docs/caecd/research/2015/150730-evaluation-choose-pharmacy-common-ailments-service-en.pdf

85. Business Services Organisation. *Minor Ailments Scheme Treatment Algorithms Listed Below* Retrieved 12/10/2015 http://www.hscbusiness.hscni.net/services/2055.htm

86. Committee PSN. (2015) PSNC Briefing 006/15: Analysis of Minor Ailments Services in England. In: Community PPtHoO, editor. *Services and Commissioning* http://psnc.org.uk/wp-content/uploads/2015/02/PSNC-Briefing-006.15-Analysis-of-Minor-Ailment-Services-in-England-does-not-include-appendix-on-fees-available-to-all.pdf

87. Health Board Additional Pharmaceutical Services. (2006) *MAS National Formulary (Part 1)*. Retrieved 12/10/2015 http://www.communitypharmacyscotland.org.uk/_resources/files/NHSInfo/MAS%20National%20Formulary%20Part%201.pdf

88. Health Board Additional Pharmaceutical Services. (2006) *MAS National Formulary (Part 2)*. Retrieved 12/10/2015 http://www.communitypharmacyscotland.org.uk/_resources/files/NHSInfo/MAS%20National%20Formulary%20Part%202.pdf

89. Information Services Division. (2015) *Prescribing & Medicines: Reimbursement and remuneration paid to dispensing contractors*. A National Statistics Publication for Scotland. NHS Scotland. https://isdscotland.scot.nhs.uk/Health-Topics/Prescribing-and-Medicines/Publications/2015-06-30/2015-06-30-Prescribing-Remuneration-Report.pdf?60641115904

90. Business Services Organisation. (2015) *BSO reimbursement price paid monthly list Drug Tariff in the Minor Ailments Part 1B*. http://www.hscbusiness.hscni.net/pdf/Formulary_MA_version4.2.pdf

91. Business Services Organisation *Drug Tariff*. Retrieved 12/10/2015 http://www.hscbusiness.hscni.net/services/2034.htm

92. Pharmaceutical Services Negotiating Committee. (2015) *Service Level Agreement (May 2015)*. Retrieved 23/10/2015 http://psnc.org.uk/our-news/service-level-agreement/