

**The
Pharmacy
Practice
Research
Trust**



Medicines & People
Turning Knowledge Into Know-How

A Strategic Direction for Pharmacy Practice Research

Summary of Recommendations



April 2009

Introduction

This summary outlines the discussions and recommendations of a pharmacy practice research summit hosted by the Pharmacy Practice Research Trust (the Trust)* in November 2008 to specifically discuss the future of pharmacy practice research across the UK. The summit brought together key stakeholders from all sectors of pharmacy, employers and policy makers.

The 2008 White Paper for Pharmacy, *Pharmacy in England - Building on strengths – delivering the future*, whilst stating that pharmacists should be involved in the delivery of a wider array of services, also clearly indicates that research underpinning both clinical and commissioning decisions needs to be strengthened. Indeed, the need for further development of the evidence base across all devolved administrations is clearly stated in the strategies for pharmaceutical care in Scotland, Northern Ireland and Wales.

The White Paper is highly aspirational in terms of the services that pharmacists could deliver, notably in the community but also for pharmacists working in secondary and primary care. There is, however, little recognition of where pharmacy practice is on the continuum of research in terms of workforce capacity and the infrastructure that should be in place to enable the delivery of many of the new services and roles within the White Paper. Furthermore, there is limited research on pharmacist interventions in the care pathways of key patient groups and whether these interventions demonstrate, for example, improvements in the long term outcomes of patients and/or value for money.

Pharmacy practice research has come some way over the last 10 years and some highly influential research from throughout the UK has been undertaken. However in general the research is largely small-scale and exploratory in nature which is in part due to a comparatively small research workforce, unsupported by a research career framework and a shortage of academic and teaching pharmacists with PhDs. This was identified more than 10 years ago in a report produced by the King's Fund and the Royal Pharmaceutical Society of Great Britain on the future of pharmacy practice research. This report published in 1997 highlighted the need for investment in the short term in both research and the pharmacy research infrastructure.

The summit looked at the three key areas that should be the immediate focus for a strategic direction for pharmacy practice research:

- research capacity;
- workforce; and,
- research priorities and integrating the findings of this research into practice.

The event included presentations from the Chief Pharmacists of England, Scotland and Northern Ireland, the Welsh School of Pharmacy, the National Institute for Health Research (NIHR) and Australian researchers who have successfully secured dedicated research and development funding to underpin the government's contractual arrangements with community pharmacy.

* The Pharmacy Practice Research Trust was established by the RPSGB in 1999 as an independent research charity with a broad objective to promote and develop the field of pharmacy practice research.

The presentations were followed by workshops around 5 key areas:

- Integrating Research into Practice
- Long Term Conditions
- Public Health
- Minor Ailments
- Integrating Evidence into Practice

The outputs and recommendations from participants have formed the outline of this strategic direction for pharmacy practice research.

The objectives of this strategic direction are to:

- raise awareness of the critical need for investment in pharmacy practice research, which is required to enable both the government and pharmacists to realise the vision within the White Paper;
- raise awareness of the need to build research capacity in pharmacy, to build the pharmacy academic workforce and to encourage practitioner engagement with research;
- identify research priority areas that must be funded to support future clinical decision making and the investment of public money in services; and,
- outline the support infrastructure needed to both build research capacity and to undertake high quality research and ensure utilisation of the research findings.

Workshop Discussions and Recommendations

Integrating Research into Practice

Introduction: there is a need to understand how research is taught and imbedded at undergraduate level and why there is an apparent lack of engagement with research at practice level. The lack of research capacity and the dearth of research in the contractual arrangements for service delivery in the community are key areas which should be addressed. The lack of general engagement in clinical trials, and the research skills and capacity of the pharmacy workforce in general should be highlighted as areas for both investigation and investment.

Summary: the aim of this workshop was to identify a clear strategy for engaging **ALL** pharmacy practitioners in involvement with robust research, from design to conduct with a strategic aspiration of improving critical thinking, empowerment of staff and professional growth.

A considerable number of areas were identified and the overarching themes were notably:

- a continued need to build a high quality academic/research workforce;
- a need to increase research capacity and knowledge in the practitioner workforce; and,
- lack of existing support infrastructures for both.

The workshop participants provided ideas for both research areas where knowledge gaps exist and how these ideas could be achieved.

Research Areas:

- How is research taught at undergraduate level – what place does research have in the curriculum?
- What impact do undergraduate research projects have on student appreciation of research?
- How do undergraduate research projects contribute to priorities for pharmacy practice research?
- How can research be linked with integrated undergraduate/preregistration pilots as outlined in the White Paper?
- What is the place of research in the contractual framework for pharmacy?
- What are the barriers and levers for pharmacists across different sectors?
- Existing Networks – why are some effective and some not?
- Should research play a key role in the career progression of advanced practitioners?

Support Infrastructure needed:

- The return of Department of Health/NIHR Fellowship scheme – flexible/part-time academic clinical fellowships for pharmacists.
- Improved links between Higher Education Institutions (HEIs) and practice.
- Funded specialist research courses using existing successful models in partnership.
- Central research hubs with research support, linked and coordinated across all 4 countries, linking into existing resources and ensuring that pharmacy does not sit in a knowledge silo.

- Improved dissemination of research findings to practitioners – this should be a key concern for HEIs. Researchers/research units to improve access at a local and national level.
- More cohesive working between HEIs
- More collaborative/multi-professional applications for research funding
- Cultural/educational changes to support the use of evidence in a practice setting.

Long Term Conditions (Chronic Disease Management)

Introduction: there is a gap in large scale trials that investigate the clinical and quality of life outcomes of patients and the cost of service delivery within pharmacy.

Summary: The workshop considered that, despite the political and professional calls for pharmacists to lead in this area, there is a lack of existing knowledge to support transfer of care from doctors to pharmacists. Notably there are very few large-scale Randomised Control Trials (RCTs) in the UK which look at the long term outcomes of patients and the economics of a pharmacist led care delivery model.

Prioritising clinical areas and interventions across such a broad field is a difficult exercise to undertake as pharmacy patients with chronic long-term conditions are managed almost entirely on medication, meaning that almost all clinical areas could theoretically be the focus of research.

The long term conditions identified as priorities for research were: heart disease, diabetes, hypertension, mental health and asthma/chronic obstructive airways/pulmonary disease. In addition, palliative care, chronic kidney disease and chronic pain management were highlighted as important, but not priority, areas whilst research is needed for newly diagnosed patients, patients discharged back into the community and those patients under the care of pharmacist prescribing services (comparative care models). Outcome measures were identified as adherence/compliance, monitoring/managing adverse reactions and patients' self management.

Research Areas:

- Preliminary systematic reviews to build upon the small exploratory studies already undertaken - with funding available.
- Potential research questions should focus on:
 - support for newly diagnosed patients;
 - support for patients with long term conditions at the point of discharge; and,
 - pharmacist prescribing services in terms of patient outcomes.
- Large scale RCTs building on existing exploratory work.
- Outcomes should focus on patient outcomes (clinical, quality of life etc) and cost of service delivery.

Support Infrastructure needed:

- A centralised searchable research database of ongoing research is needed.
- Sustained investment (1-5 years) for the identified priority clinical areas - participants felt that this should be funded, at least in part, by the Departments of Health.

- Collaborative funding to support exploratory and pilot work in multiple sites should be investigated. This work may then be used as leverage for larger funding applications for full scale RCTs.
- Stronger collaborative links between pharmacists and health service researchers to ensure pharmacy representation on key funding panels and to build on the number and quality of applications to large funding bodies.

Public Health

Introduction: it is acknowledged that measuring the value of public health interventions in terms of patient outcomes is notoriously difficult even with well designed and large scale research projects. For pharmacists, public health services largely consist of advice and information services to a transient population of customers who may or may not return. Monitoring throughput and, to some extent, satisfaction with services are inadequate measures of how effective a service is on the long-term health of the public.

Summary: it was recognised that there is some existing evidence, around smoking cessation, which has tangible measures of outcomes (quit rates, relapses etc). However, for interventions such as lifestyle advice it may only be possible to measure accessibility, patient and public perception, acceptance the quality of the services provided and the cost of providing them in comparison to other providers. Small-scale studies should be extended to large-scale trials including economic evaluation of the services. These areas could include screening, smoking cessation, sexual health, obesity and alcohol abuse. In addition, workforce skill-base and the role of pharmacy in the wider healthcare team should be considered.

Research areas:

- Safety - investigating the public's use of Over-The-Counter (OTC) medicine for minor symptoms that may indicate signs of infection (e.g. gastro enteritis), looking at reporting mechanisms, the use of children's medicines.
- Medicines and medicine safety knowledge.
- Economic evaluation of services - cost effectiveness of delivering services through community pharmacies.
- The place of pharmacy within the wider health team - role of pharmacists as seen by other health professionals, how pharmacy led services fit with other health services in terms of processes such as referral mechanisms, development and evaluation of partner services in terms of patient outcomes, cost, and inter-professional working.
- Screening services - vascular screening (diabetes, heart disease & stroke, wider programme of screening of cardiovascular risk).
- Build on small scale research already undertaken - as with long term conditions – to prepare for large scale trials.
- MURs - do they work? What is the long-term impact? Who is benefiting and are they cost effective?
- Sexual Health – what is the impact of services on national figures for sexually transmitted diseases, pregnancy and safe sexual behaviours?
- Smoking Cessation – measurement of long term outcomes and economic evaluation needed.
- Weight management - what is the role of community pharmacy?

Support Infrastructure needed:

- Pump priming funding needed to fund priority areas - funded, at least in part, by the Department of Health as well as investment from community pharmacy.
- Build research capacity in community pharmacy to involve pharmacists in public health research.
- Wider health service support so that screening in pharmacies does not sit in isolation – this may have issues for follow up and patient/public care
- Multiprofessional collaboration - local multi-disciplinary research networks should be utilised.

Minor Ailments

Introduction: in 2007, the public bought over 976 million packs of OTC medicines to treat themselves, compared with 873 million prescriptions[†] and 57 million GP consultations a year (200,000 consultations per day) involve minor ailment discussion, 90% of which (51.4 million) are for minor ailments alone, equating to over an hour a day for every GP.

The purpose of this workshop was to identify research priorities that seek to evaluate the impact of pharmacist intervention in the self-care of minor ailments. There is an intention to introduce pharmacy based NHS services to relieve the burden on GPs through the Contractual Framework for Community Pharmacy. Currently, however, there is little evidence to support this, indeed, the updated Wanless Report makes no mention at all of pharmacy.

Summary: as in other workshops, it was agreed that the current evidence base for pharmacist led minor ailments services is inadequate with a notable gap in knowledge around the business case for this service and what ailments pharmacists could have a particular impact upon.

Research Areas:

- Identification of ailments with the highest impact on the workload of high-cost services (GPs, A&Es) – linked to national and local health priorities.
- Evaluation of pharmacist consultation/diagnostic skills in these areas.
- Community pharmacy staffing skill mix – impact on quality of care/advice given.
- Systematic review that includes non-published data (grey literature).
- Evaluation of different models of delivery of care – comparing cost and outcomes, for example, for GPs and pharmacists.
- Triggers for seeking care for minor ailments.
- Organisational research - how organisational structures of pharmacy impact on care delivery, for example, commercial values vs. care values.
- Large scale projects – national/regional to better identify impact of services.

Support Infrastructure needed:

- Funding for priority areas across the UK - possibly in the short term from the Department of Health.
- Searchable index of research to include examples of good practice, for example, collaborating GPs and pharmacists, and what lessons can be learnt from these.
- Buy-in from commissioners and engagement with other health professionals.

[†] Proprietary Association of Great Britain

Integrating Evidence into Practice

Introduction: although evidence based practice is accepted as the gold standard for clinical care, it cannot always be assumed that implementation of evidence, or indeed, awareness of the evidence, is a natural consequence of the publication. Implementing the evidence base is an international and cross professional concern and several research studies have called for strategies that address identified barriers in implementing the evidence. It would seem prudent for any strategy for research to incorporate this critical element in the use of existing and future evidence.

Summary: this workshop aimed to identify a strategy or strategies that facilitate embedding evidence based practice into the everyday practice of pharmacists and their support staff.

Ultimately there is an over arching need for pharmacists to realise the importance of evidence in clinical decision-making alongside first principle scientific knowledge, especially in care delivery and diagnostics. If pharmacists are to lead services their diagnostic skills, decision to treat or refer, will require a foundation in evidence. Treatment initiated by pharmacists will rely on clinical evidence over and above knowledge of current medication treatments, this is particularly pertinent to advanced practitioners and those with a specialist interest in a clinical area. Quality of care and patient safety rely on decision making based around current evidence and guidance, from pharmacy based research but also from other health professions. As with their medical and nursing colleagues, research should therefore form the basis of pharmacists' clinical decisions and should be part of everyday practice.

Research Areas:

- How pharmacists currently access and use evidence in every day practice across different sectors.
- Exploration of the role of research and decision making in pharmacy practice.

Support Infrastructure needed:

- Access/useability - availability of research summaries and alerts.
- Rebranding "Pharmacy Practice Research" as "Health Services Research" to avoid marginalisation of research outputs.
- Local/regional/national research champions and role models.
- Greater role for researchers in innovative dissemination of research and collaborating to translate findings into, for example, best practice guidance.
- Improved integration of first principle scientific knowledge with the evidence base for practice – Science into Practice.
- Raising awareness of the importance of evidence in clinical decision making alongside first principle scientific knowledge.
- Raising awareness of research evidence in negotiations with commissioners and health professions.
- Cultural/educational changes to support the use of evidence in a practice setting.

See also, outcomes for "Integrating Research Into Practice".

Summary Recommendations

The outputs and recommendations from these discussions form the basis of a strategic direction for pharmacy practice research that the Trust is proposing. The Trust recommends that:

Governments consider:

- investing in the pharmacy workforce, research priorities and infrastructure needed to produce high quality research – in the region of £15 - £20 million over five years.
- funding, at least in part, for priority research areas in long term conditions, public health and minor ailments across all four nations to underpin the aspirations of national policies.
- increasing research capacity efforts by the return of a research fellowship scheme, akin to the Department of Health's Pharmacy Practice Research Enterprise Scheme, which offers flexible/part-time academic clinical fellowships.

Academia considers:

- strengthening the collaborative nature of research to meet the needs of the wider health agenda.
- strengthening links with pharmacy practice, facilitated via "Local Research Champions".

Employers consider:

- recognising and supporting research and development as part of a pharmacist's role.
- investing in research that seeks to investigate existing professional practice and advance the profession.

Pharmacy leaders consider:

- engaging with other health professionals to identify collaborative research priorities;
- developing a "Centre of Excellence" to identify good practice, facilitate access to research (evidence and training) and promote collaborative working.
- coordinating a UK-wide research network of key pharmacy academics, linked to other professional research networks.
- identifying the role of the MPharm curriculum in preparing practising pharmacists in the use of research principles and evidence in decision making.
- developing a support infrastructure for collaborative/multiprofessional applications for research funding.

With increasingly limited resources for research investment, competition for funding will increase. Responsibility for funding a strategic direction for pharmacy practice research must lie with the Department of Health in resourcing its policy aspirations, with the regulator for pharmacy education, and with the profession, its employers and its leaders for professional development and practice.

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This event represents only the first stage in identifying priorities for research and raising key issues that act as barriers or facilitators to participation in and utilisation of research.

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Professor Sally Davies, Director of Research & Development, Department of Health

The full report and recommendations of the research summit and speakers' presentations can be downloaded from:

<http://www.pppt.org.uk/ResearchActivity/StrategicDirectionForPharmacyPracticeResearch.aspx>