

Professor Vibhu Paudyal

Prof. Vibhu Paudyal is a Professor of Health Services Research & Inequalities at King's College London. His research focuses on health inequalities, particularly for people facing severe disadvantages like homelessness. He leads a UK NIHR-funded trial to integrate health and social support for people experiencing homelessness.

Professor Paudyal has published over 120 peer-reviewed papers, co-edited a book, and supervised 12 PhD students. He is a Fellow of the European Society of Clinical Pharmacy (FESCP) and associate editor of the *International Journal of Clinical Pharmacy*. His international work includes promoting access to treatments for pain and substance use disorders in South Asia



Non-medical prescribing to widen access to medicines and mitigate health inequalities: International experiences



Professor Vibhu Paudyal BPharm, MSc (Clinical Pharmacology), PhD, FESCP

Professor of Health Services Research and Inequalities
Fellow of the European Society of Clinical Pharmacy

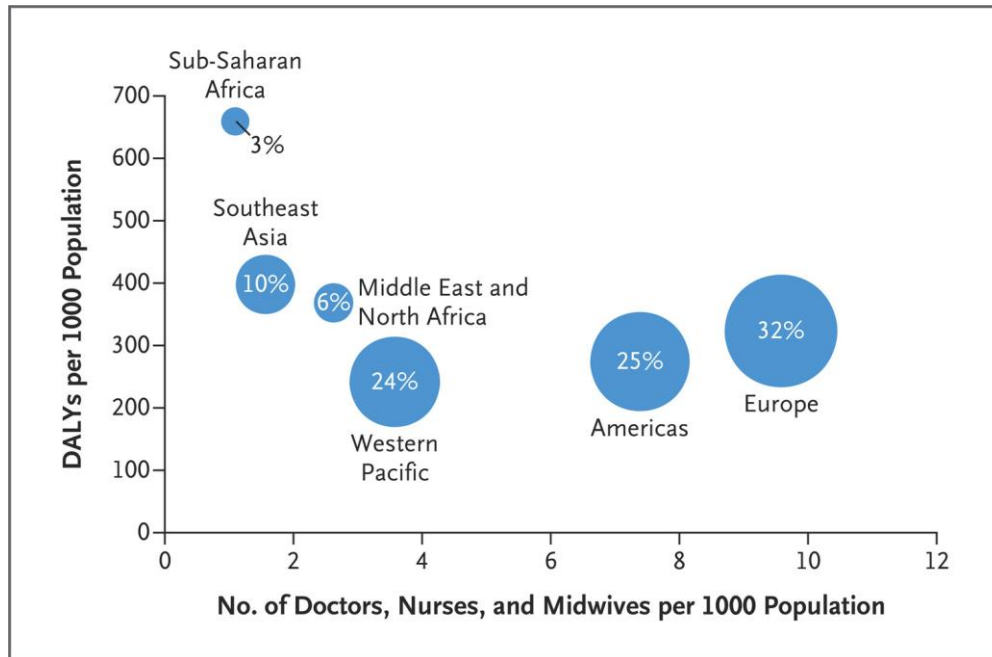
King's College London

Vibhu.Paudyal@kcl.ac.uk



Non-medical prescribing

Non-medical prescribing (NMP) refers to healthcare practitioners other than doctors or dentists such as pharmacists, nurses and midwives having legal rights to prescribe medications.



N Engl J Med 2014;370:950-957

1

- Increasing work pressures in the health system

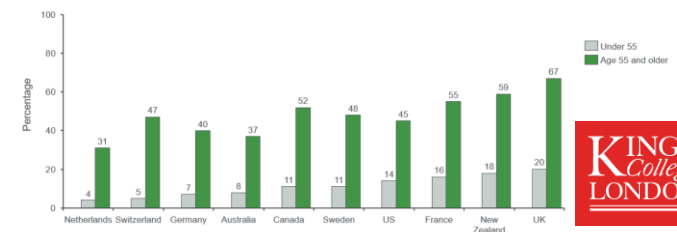
2

- Imminent lack of clinical capacity of the medical workforce

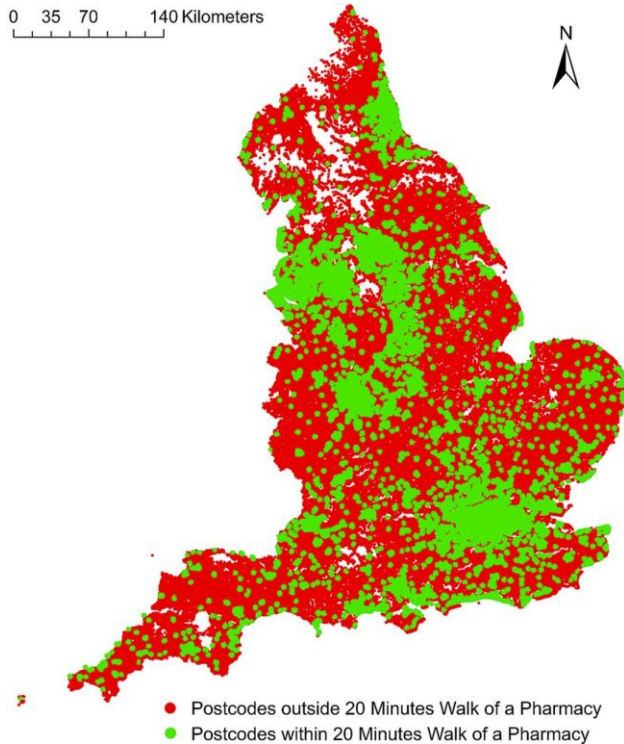
3

- Increasingly multimorbid older population with complex medicines related needs

Percentage of primary care physicians in HICs who plan to stop seeing patients in the next one to three years, by age
November 2022



Non-medical prescribing opportunities



Increasing

Increasing patient access to medicines

Improving

Improving patient care outcomes without compromising patient safety

Making

Making better use of the skills of health professionals

Source: NIHR 2022

UK models

Supplementary
prescribing
2003

- voluntary partnership between an independent prescriber and a supplementary prescriber to implement an agreed patient-specific clinical management plan with patient agreement

Independent
prescribing
2006

- prescribing by a practitioner responsible and accountable for the assessment of patients with undiagnosed or diagnosed conditions and for decisions about the clinical management required, including prescribing

Independent prescribing-competency and qualifications

- Master's level programmes accredited by General Pharmaceutical Council
- At least 26 days of structured learning activities and 90 hours of learning in practice
- Person-centred care, professionalism, knowledge and skills, collaboration
- Must have relevant experience in a UK pharmacy setting
- Must have an identified area of practice in which to develop prescribing

General
Pharmaceutical
Council

Standards for the education and
training of pharmacist
independent prescribers

Updated October 2022



**Now integrated into the
undergraduate programme
On registration will be
independent prescribers**

<https://www.pharmacyregulation.org/sites/default/files/document/in-practice-guidance-for-pharmacist-prescribers-february-2020.pdf>

Pharmacy Minor Ailment Service- *'Prescribing lite'*

A free service in pharmacy for the underserved to treat common ailments- no costs for consultation medicines supplied

Such service would

- improve access to patients
- minimise physician waiting times
- reduce healthcare costs for government
- ensure greater utilisation of pharmacists' clinical skills

Red eye

Stomach upset

Aches and pain

URT issues



Baseline health outcomes and utility data before index consultation

Baseline health outcomes data after index consultation

Follow up data on health outcomes and utility

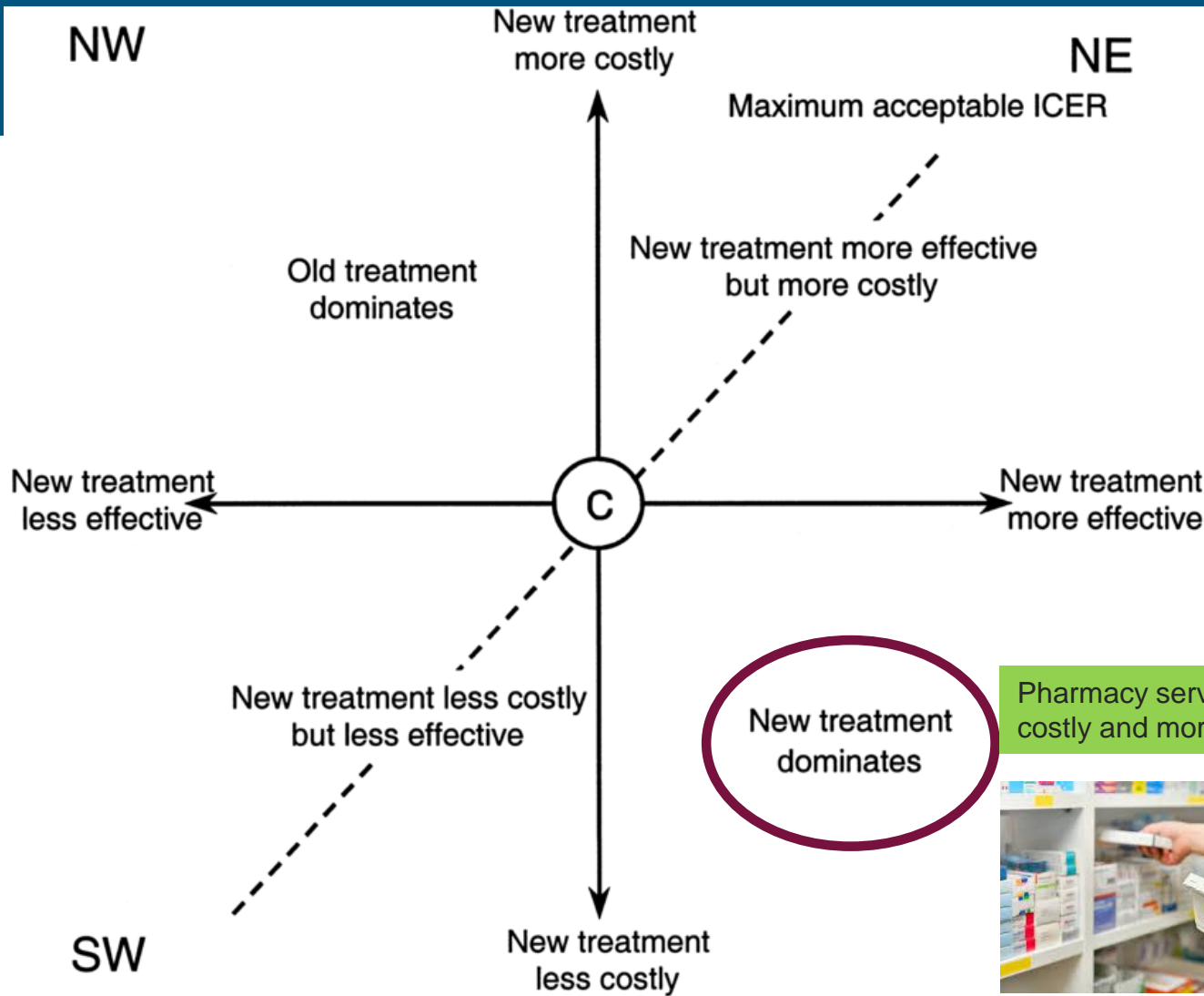
Cost-effectiveness and cost-utility analysis

All costs incurred from patients, provider and government perspectives throughout the episode of illness

$n = 377$

Health and economic outcomes

- Symptom resolution rate at 14 days was higher in pharmacy (44.3%) compared to ED (37.3%) or family physician (35.7%)
- Mean overall costs per consultation were significantly lower for pharmacy (£29.30 (95% CI £21.60 to £37.00)) compared with family physician (£82.34 (95% CI £63.10 to £101.58)) and ED (£147.09 (95% CI £125.32 to £168.85)).



Pharmacy service less costly and more effective



Treating common illnesses at pharmacies 'could save NHS £1bn'

COMMENTS (321)



Treating common ailments like coughs and colds at community

Pharmacist independent prescribing for people experiencing homelessness- A randomised controlled trial

Mean age at death of people who died while experiencing homeless in England is 45.9 years for males and 43.4 years females, 40% of deaths caused by poisoning.

(Office of National Statistics)



Image Source: LGA

Supporting access to medicines and roles for clinical pharmacy

'When you are homeless, you are not thinking about your medication; but your food, shelter or heat for the night.'

I've been sacked (from work) at about six to eight months ago for falling asleep at work (due to side effects of methadone).'



'You are keeping (medicines) in your socks, down your trousers.... Because if you fall asleep and its in your socks it could be quite easily stolen.'

'Never had money for bus fares and sometimes I wasn't actually fit to walk up to my chemist. Sometimes people would (offer) lift and they wouldn't turn up.'

Patient and stakeholder preferences



Article

Clinical Pharmacy Intervention for Persons Experiencing Homelessness: Evaluation of Patient Perspectives in Service Design and Development

Parbir Jagpal¹, Nigel Barnes², Richard Lowrie³, Amitava Banerjee⁴ and Vibhu Paudyal^{1,*}

¹ School of Pharmacy, College of Medical and Dental Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK; P.K.Jagpal@bham.ac.uk

² Birmingham and Solihull Mental Health NHS Foundation Trust, Birmingham B23 6AL, UK; nigelbarnes@nhs.net

³ NHS Greater Glasgow and Clyde, Glasgow, G76 7AT, UK; Richard.Lowrie@ggc.scot.nhs.uk

⁴ Institute of Health Informatics, University College London, London NW1 2DA, UK; ami.banerjee@ucl.ac.uk

* Correspondence: v.paudyal@bham.ac.uk

Received: 15 October 2019; Accepted: 11 November 2019; Published: 13 November 2019



Abstract: Persons experiencing homelessness have a high prevalence of severe mental health problems, alcohol dependence, substance misuse and infectious hepatitis C, and face up to twelve times higher mortality rates compared to the general population. They also face barriers to accessing healthcare. However, clinical pharmacy services are currently not available to homeless populations in England. The aim of this study was to conduct public involvement sessions with persons experiencing

Jagpal et al. 2019; Pharmacy 7(4): 153;
Jagpal et al. 2020; Int J Eq Health (2020) 19:86

International Journal of Clinical Pharmacy (2019) 41:215–227
<https://doi.org/10.1007/s11096-019-00789-4>

RESEARCH ARTICLE



Perceived roles and barriers in caring for the people who are homeless: a survey of UK community pharmacists

Vibhu Paudyal¹ · Kathrine Gibson Smith² · Katie MacLure² · Katrina Forbes-McKay³ · Andrew Radley⁴ · Derek Stewart²

Received: 4 October 2018 / Accepted: 9 January 2019 / Published online: 18 January 2019
© The Author(s) 2019

Abstract

Background Community pharmacists can be an accessible source for advice and support for the people who are homeless, given their utilisation of a variety of currently available services such as dispensing of medicines, drugs and alcohol services. **Objective** To determine community pharmacists' training, experiences and behavioural determinants in counselling and management of homeless population. **Setting** UK community pharmacies. **Method** A questionnaire based on literature and theoretical domains framework was mailed to randomly sampled community pharmacies in England and Scotland (n = 2000). Data were analysed using descriptive and inferential statistics. **Main outcome measures** Pharmacists' perspectives, pharmacists' training, pharmacists' experiences and behavioural determinants. **Results** A total of 321 responses (RR 16.1%) were received. Respondents indicated lack of knowledge, skills, intentions as well as contextual factors such as lack of guidelines impacted on their counselling and management of homeless patients. Less than a third (n = 101, 32.2%) indicated that they knew where to refer a homeless patient for social support. Broaching the subject of homelessness was outside their comfort zone (n = 139, 44.3%). Only four (1.2%) respondents could correctly answer all knowledge assessment questions. **Conclusions** Community pharmacist identified lack of education, training opportunities and guidelines in counselling and management of homeless patients. Targeting community pharmacists' knowledge, skills and intention to provide care to the homeless patients may enable addressing health inequality through community pharmacy.

'I've recently started a new medication cause I was already diagnosed, dual diagnosis, when I was in prison I had an addition diagnosis, I started a new medication but, I've not had a chance to speak to anybody about the medication or potential side effects, whatever, whereas if there was a pharmacist there at the time, that would've helped a lot ...

Jagpal et al. International Journal for Equity in Health (2020) 19:86
<https://doi.org/10.1186/s12939-020-01206-3>

International Journal for
Equity in Health

RESEARCH

Open Access

Research priorities in healthcare of persons experiencing homelessness: outcomes of a national multi-disciplinary stakeholder discussion in the United Kingdom

Parbir Jagpal¹, Karen Saunders², Gurveer Plahe², Sean Russell³, Nigel Barnes⁴, Richard Lowrie⁵ and Vibhu Paudyal^{1*}

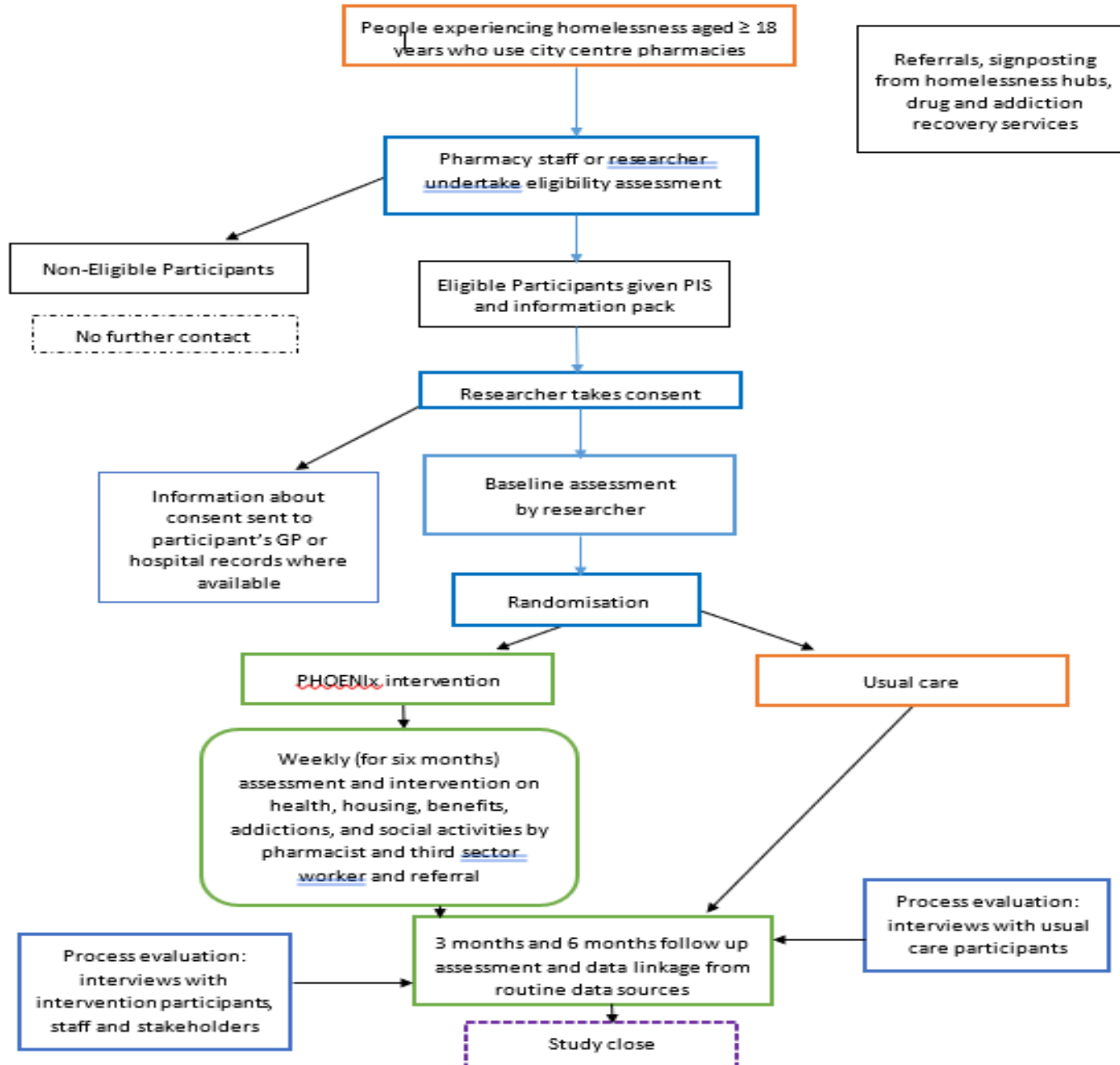
Abstract



PHOENIx Community Pharmacy-prescribing RCT (PHOENIx)

- Pharmacy Homeless Outreach Engagement Non-medical Independent prescribing Rx (PHOENIx)
- A model of care originally based in Glasgow (Lowrie et al). A structured face to face health and social care check for people experiencing homelessness
- Pharmacist assesses physical, mental and problem drug use and included any relevant near patient tests and/or clinical examination
- **Any prescribing activities by the pharmacist follows established clinical guidelines**
- The Charity worker addresses housing, benefits, advocacy and social prescribing
- Following the initial screening, the participant identify their own priorities for action, and the team works through these one at a time
- Weekly visits offered where agreeable to the participant for up to six months
- These meetings took place in pharmacies, the street, community centres, day centres or temporary accommodations

• TRIAL SCHEMA



Results: achievement of progression Criteria

	Red	Amber	Green	Results
Recruitment				
Proportion of PEH (as assessed by the researchers) meeting eligibility criteria and agreeing to participate	<40%	40-50%	>50%	100/183 55%
Retention				
Proportion of participants remaining in the study at 6 months	<50%	50-60%	>60%	72/100 72%
Intervention adherence				
Proportion of participants attending >50% of intervention visits as planned (flexible schedule agreed at consultation)	<50%	50-60%	>60%	26/49 53%
Outcome data				
Proportion of participants with Emergency Department visits and mortality data available at 6 months	<60%	60-70%	>70%	91/100 91%
Proportion of patients with questionnaire booklets completed at 6 months	<50%	50-60%	>60%	72/100 72%

Clinical outcomes- Emergency hospital visits

Usual care: 31% and 40% UC participants had at least one ED visit at 3 and 6-months follow-up respectively compared to 22% at baseline.

PHOENIx intervention: In PHOENIx group, 28% and 29% participants had at least one ED attendance at 3 months and 6 months compared to 29% at baseline over the same duration.

Quality of life and Social outcomes

UC participants saw small decrease in EQ-5D utility scores at 3 (0.41) and 6 (0.41) months compared to the baseline (0.46). Intervention participants saw an increase from baseline value of 0.39 to 0.51 which was sustained at 6 months

In the UC, while rough sleeping was decreased at 3 months, it increased at 6 months. There was a decrease in the proportion of participants sleeping rough in the PHOENIX group at both 3 and 6 months

Intervention in practice

Prescribed treatments

-Antidepressants; respiratory; steroids, blood and nutritional products; gastrointestinal, antibiotics, topicals/wound care, antiepileptics...

Referrals

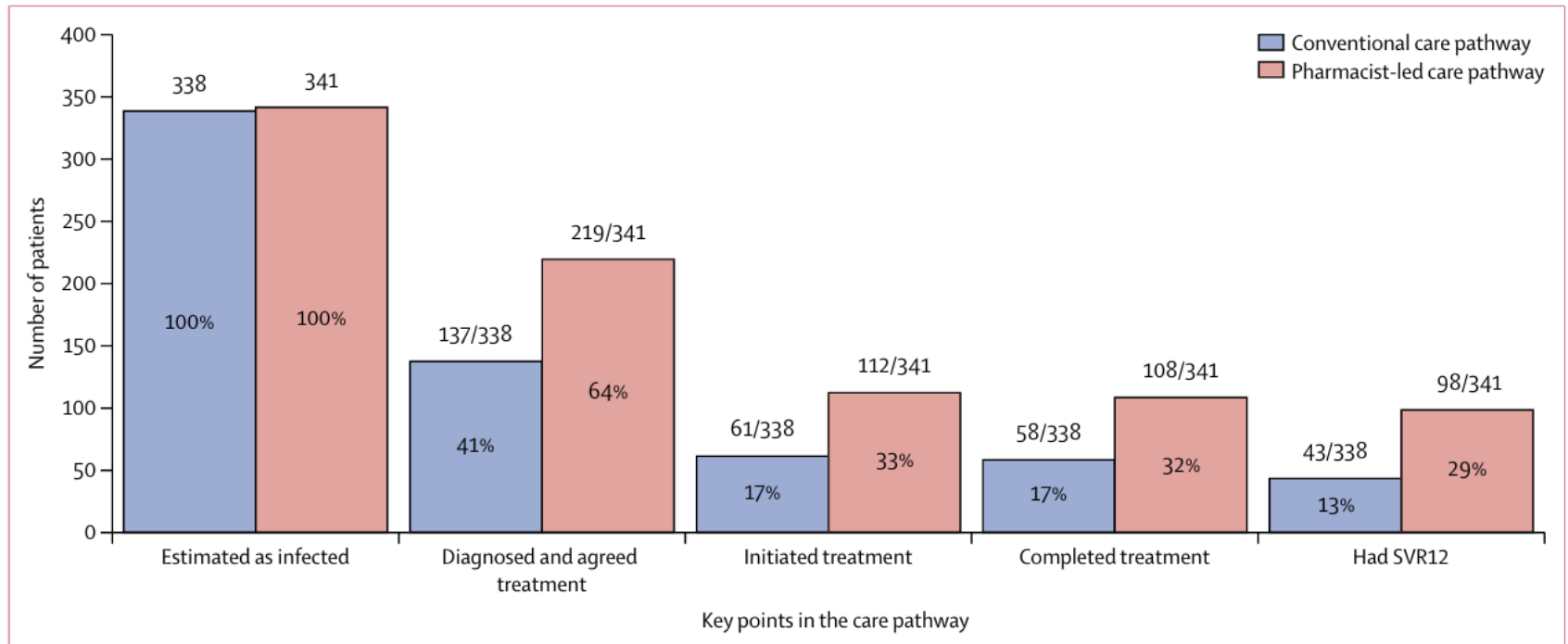
-Mostly urgent referrals and accompanied them as necessary in clinical appointments such as in the general practice and substance misuse clinics on both encouragement and advocacy roles

Outreach venues

-Community pharmacies, temporary hostels and accommodations, streets, homelessness support hub

-Alongside the third sector support worker, pharmacist also made provision of food and clothing via support hub, accompanied them in housing, bank and social benefits appointments.

Cluster RCT of community pharmacist-led screening and treatment of Hep C in the UK



Using pharmacists to deliver an HCV care pathway made testing and treatment more accessible for patients, improved engagement, and maintained high treatment success rates

Radley et al. Lancet Gastro Hep 2020; Radley et al. 2017 J Drug Policy 47: 126-36

Non-medical prescribing: evidence base

- Practising with varying but high levels of autonomy, in a range of settings, were **as effective as usual care medical prescribers**
- Delivered **comparable outcomes** for systolic blood pressure, glycated haemoglobin, low-density lipoprotein, medication adherence, patient satisfaction, and health-related quality of life

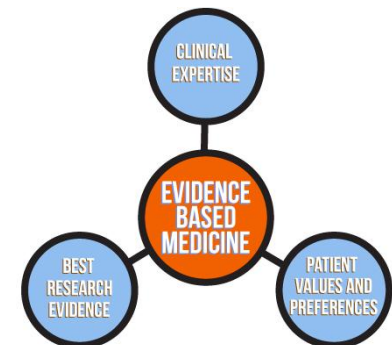


Cochrane
Library

Cochrane Database of Systematic Reviews

Non-medical prescribing versus medical prescribing for acute and chronic disease management in primary and secondary care (Review)

Weeks G, George J, Maclure K, Stewart D



Pharmacist prescribing- facilitators and barriers

Received: 2 November 2022 | Revised: 17 April 2023 | Accepted: 22 April 2023

DOI: 10.1111/bcp.15758

ORIGINAL ARTICLE



Cochrane Database of Systematic Reviews

Minimizing prescribing errors: A phenomenological exploration of the views and experiences of independent prescribing pharmacists

Joshua Roberts¹ | Myriam Jaam² | Vibhu Paudyal¹ | Muhammad Abdul Hadi²

¹School of Pharmacy, Institute of Clinical Sciences, University of Birmingham, Birmingham, B15 2TT, UK

²Department of Clinical Pharmacy and Practice, College of Pharmacy, QU Health, Qatar University, Doha, Qatar

Aims: This study aims to explore the views and experiences of independent prescribing (IP) pharmacists regarding prescribing errors and strategies to mitigate errors in practice.

Methods: One-to-one online semi-structured interviews were conducted with IP pharmacists across the United Kingdom. Verbatim transcripts of the interview were

Pharmacists providing prescribing advice and education to healthcare professionals in community, primary care and outpatient settings (Protocol)

Pharmacist and Homeless Outreach Engagement and Non-medical Independent prescribing Rx (PHOENix) Trial - Process Evaluation

Priority 1 (Research Category)

Clinical trial

Presenters

Frances Mair, MD, FRCGP, Vibhu Paudyal, PhD, Andrea E Williamson, PhD, FRCGP, MBChB, MPH, FHEA DTM&H, Shabana Akhtar, Alessio Albanese, PhD, Richard Lowrie, PhD, Jane Moir, BSc

Abstract

Context: People experiencing homelessness (PEH) have complex health and social care needs and most die in their early 40s. PEH frequently use community pharmacies; however, evaluation of the delivery of a structured, integrated, holistic health and social care intervention has not been previously undertaken in community pharmacies for PEH. PHOENix (Pharmacy Homeless Outreach Engagement Non-medical independent prescribing Rx) has been delivered and tested in Glasgow, Scotland and Birmingham, England, by NHS pharmacist independent prescribers and third sector homelessness support workers as



Available online at www.sciencedirect.com

ScienceDirect

Research in Social and Administrative Pharmacy 9 (2013) 251–262

Original Research

RESEARCH IN SOCIAL & ADMINISTRATIVE PHARMACY

Over-the-counter prescribing and pharmacists' adoption of new medicines: Diffusion of innovations

Vibhu Paudyal, Ph.D.^{*}, Denise Hansford, Ph.D.,
Scott Cunningham, Ph.D., Derek Stewart, Ph.D.

School of Pharmacy and Life Sciences, Robert Gordon University, Schoolhill, Aberdeen, AB10 1FR, UK

Facilitators

Personal qualities

Organisational support

Interprofessional team working

Practice setting

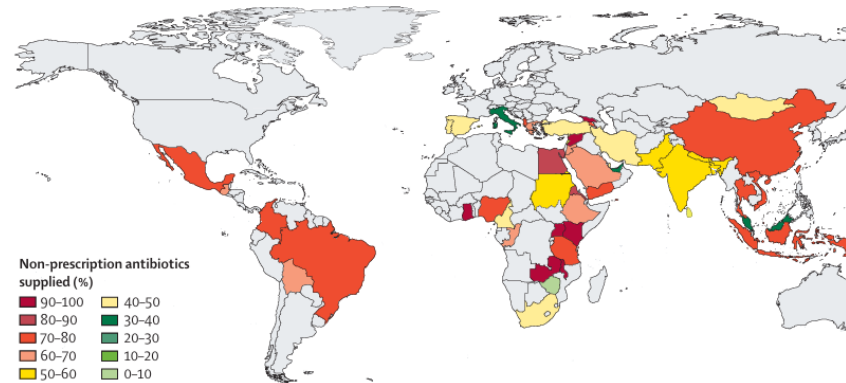
Barriers

Poor clinical skills

Physician resistance

Infrastructure, legal and funding issues

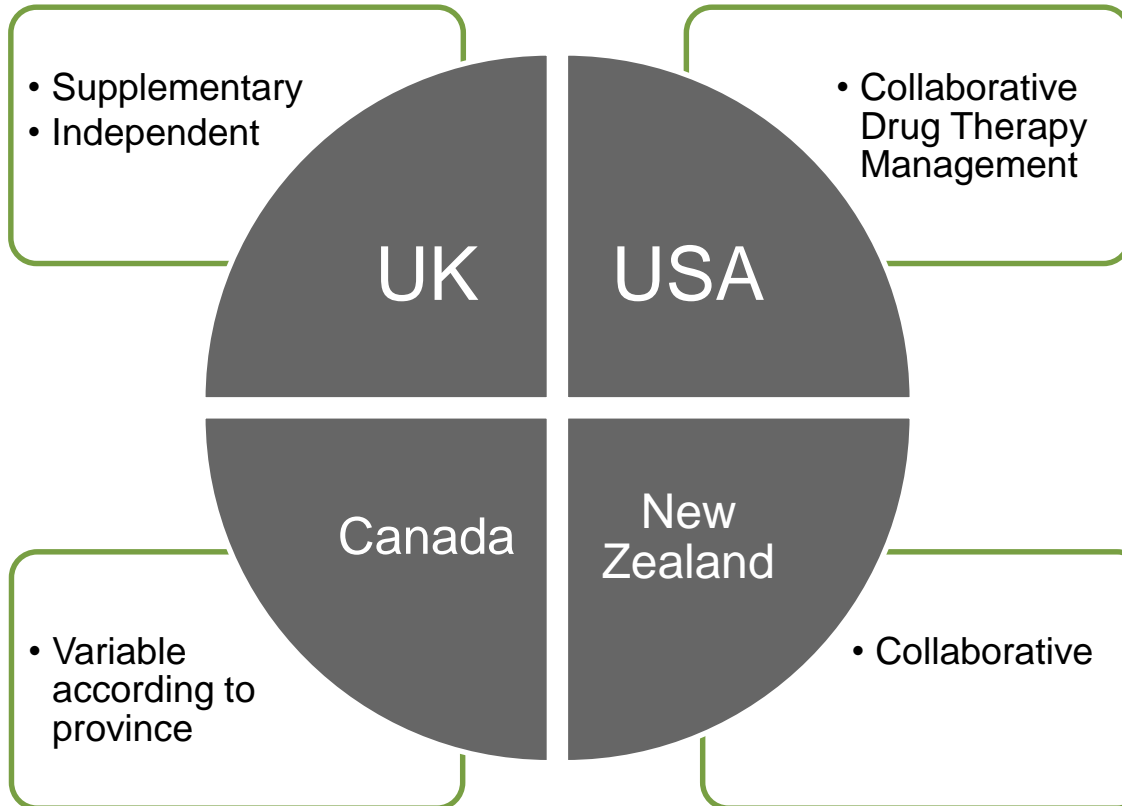
Implementation of non-medical prescribing in Nepal



Lancet Infect Dis 2023; 23: e361–70

- ❑ Non-medical prescribing already happening in some legal and some covert ways
- ❑ Protocol-based supply by HA and CMAs in remote areas
- ❑ Non-prescription supply of prescription medicine by community pharmacy staff is common
- ❑ Scope to regulate these practices through appropriate legislation allowing rights for prescribing
- ❑ Curriculum and competency framework
- ❑ Acceptability by patients, other HCPs, readiness of future prescribers

Global models of Pharmacist Prescribing



Wide variation

- ✓ legal restrictions on who, what, how much, to whom
- ✓ independent basis or under physician supervision

Prescribing competency framework



Royal Pharmaceutical Society. A Competency Framework for all Prescribers, 2022

British Pharmacological Society. Ten principles of good prescribing. Available at <http://main.bps.ac.uk/SpringboardWebApp/userfiles/bps/file/Guidelines/BPSPrescribingPrinciples.pdf>

Acknowledgements

- PHOENIx Community Pharmacy study was funded by the National Institute of Health and Care Research (NIHR) Health Services and Delivery Research scheme under commissioned call stream '20/56 Community Pharmacies'. [Grant award ID: NIHR133060] The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care. Neither the study funder nor the sponsor had any role in the study design; collection, management, analysis, and interpretation of data; writing of the report; and the decision to submit the report for publication.
- Health Services and Delivery Research Programme, NIHR133060-Vibhu Paudyal, NIHR133060-Richard Lowrie

NIHR | National Institute for
Health and Care Research



Pharmacy Research **UK**



Acknowledgements

- Dr Sunil Shrestha
- Professor Derek Stewart*
- SIFA Fireside
- Trident Reach
- Simon Community Scotland
- Community Pharmacy Team, PHOENIX CP study
- Richard Lowrie
- Andrew McPherson
- Helena Heath
- Jane Moir
- Natalie Allen
- Nigel Barnes
- Hugh Hill
- Adnan Araf
- Cian Lombard
- Steven Ross
- Kathrine Gibson Smith
- Neha Vohra
- Matthew Bowen
- Ellie Gunner
- Rishika Kaushal
- Karen Saunders
- Sarah Tearne
- Parbir Jagpal,
- Versha Cheed
- Lee Middleton
- Shabana Akhtar
- George Provan
- Jennifer Hislop
- Andrea Williamson
- Frances S. Mair

*some slides courtesy