Practice Plus Webinar

18th October 2023

Steve Williams

Lead Clinical Pharmacist
PrescQIPP Practice Plus

NIHR PRoTeCT

Avoiding patient harm through the application of prescribing safety indicators in English general practices (PRoTeCT)

Key strategies for successful adoption and impact of clinical decision support technologies in Primary Care

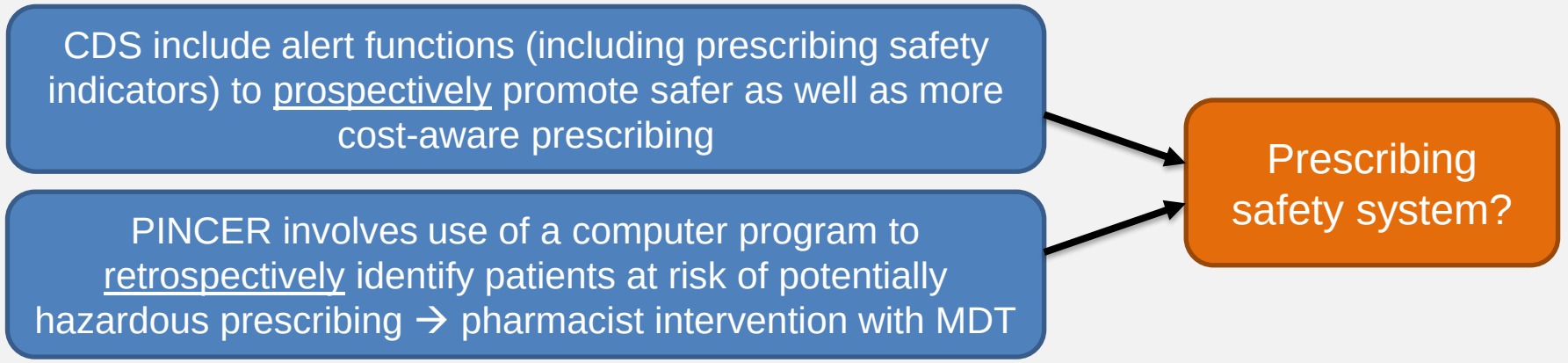
Dr Richard Keers

On behalf of the PRoTeCT Work Package 4 team

FUNDED BY NIHR | National Institute for Health Research

Background

- Clinical decision support (CDS) and pharmacist-led IT-based intervention to reduce clinically important medication errors (PINCER) both utilise prescribing safety indicators to support medication safety in primary care



- Roll-out of CDS & PINCER has proceeded at pace

Background

But where and how do CDS and PINCER 'do the most good' in a changing NHS landscape?

- Despite wide-spread use, we need more evidence of their impact
- National roll-out means variation+++ and we need to better understand what influences engagement, use and impact particularly over longer periods of time
- For CDS there appears to be more data from hospitals. Evidence from primary care has examined shorter time periods, is not as recent and not all is UK based

Chen W, et al.. Implement Sci Commun 2022;3:
Nanji, K.C, et al.. J Am Med Inform Assoc 2014; 21(3): 487-491
Trinkley KE, et al. BMJ Health Care Inform 2019;26.
Moxey A, et al. J Am Med Inform Assoc 2010;17:25-33.
Hayward J, et al. J Am Med Inform Assoc 2013;20:e76-e84.
Lugtenberg M, et al. BMC Fam Prac 2015;16:141

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Fitting CDS into the current context

Practice level	Regional level	National level
• 'Fit' with IT systems • Patient specific • Safety climate	• Tailor local policy • Cost saving • Tailor alerts	• Policy agenda • Incentives

*We got told, that […]it was similar to what we already had anyway, and so we shouldn't, besides the screens looking a little bit different, it shouldn't really impact on our workflows or anything like that. And essentially, by and large, they were right. It had a few little extra bangs and whistles, particularly I think, to connecting to links to websites, if we wanted to know more, which seemed a bit more better integrated, so we had all the functionality of previously, plus a bit more, and it was a bit tidier…**(GP5)***

*Medication reviews I do here. This probably might explain why we've got less (alerts) here. […]. Whereas other places where they've not had review I'm going into a jungle almost of interactions and possible problems.**(GP3)***

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Engaging hearts and minds

Work with software developer and regional teams – **start early and foster local ownership** in general practice

Make explicit **benefits** of CDS, **communicate** to front line with local context

Engage with safety values of colleagues

Local leadership – is there a 'champion'?

[…] for me personally (the main focus has) got to be patient safety. Because if (the CDS alerts) can stop you prescribing something that would do the patient harm, that otherwise wouldn't have flashed up to you, that's got to be worth its weight in gold from my perspective…
(GP14)

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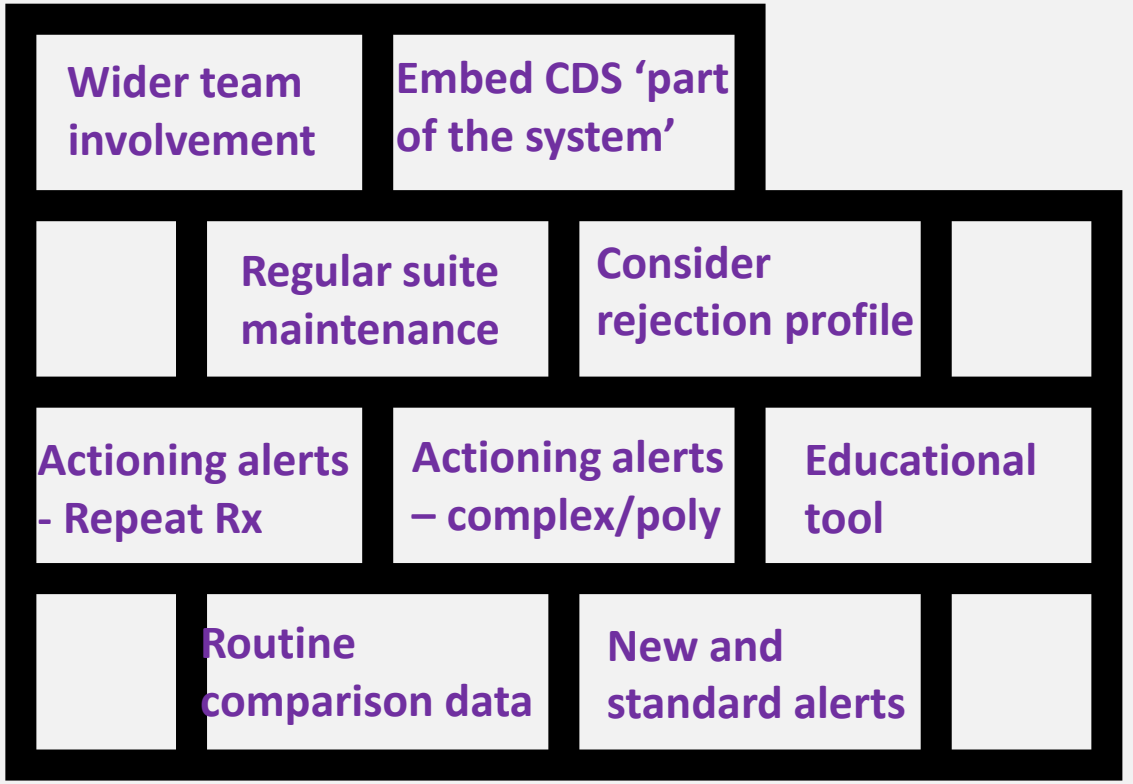
Building resilience

And if it's a safety thing, then generally I've been quite pleased that it's happened because it's given me an opportunity to make a change before potentially something that might cause me a problem later down the line or caused a patient a problem later down the line. ***GP4 (Follow-up interview)***

*I had over 300 patients on over 25 medications, and that is impossible for (the CDS system) to help me. I've got to be really quite selective about what I do. Because if I've got 20 alerts up when I'm doing a medication review I cannot deal with 20. But I've learned to be a bit more selective about it, and I'll go for the low hanging fruit, and I'll perhaps do a little bit in the notes to say discuss such and such next time.****(GP3)***



Medication safety for people with mental illness in primary care: what we know and future priorities

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Dr Richard Keers

Senior Clinical Lecturer in Pharmacy

Honorary Research Pharmacist, Pennine Care NHS Foundation Trust

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What evidence is there in primary care?

- Scoping review of international literature – summarise current evidence on **drug related problems** for patients with mental illness in primary care
  - Epidemiology
  - Aetiology
  - Interventions and impact
- Six databases searched from 2000 → 2021 & Google Scholar
- Excluded studies of particular drug or type of drug problem
- Total of **79 studies** included
  - 77 – epidemiology
  - 25 – aetiology
  - 18 – interventions

Drug related problems

Potentially inappropriate prescribing (PIP)
Medication errors
Non-adherence
ADEs, ADRs


Ayre et al. BMC Psychiatry (2023) 23:417
https://doi.org/10.1186/s12888-023-04850-5

BMC Psychiatry

RESEARCH Open Access

Understanding the medication safety challenges for patients with mental illness in primary care: a scoping review

Matthew J. Ayre[1*], Penny J. Lewis[1,2,3] and Richard N. Keers[1,2,4]

Ayre MJ, et al. BMC Psychiatry 2023;23:417.

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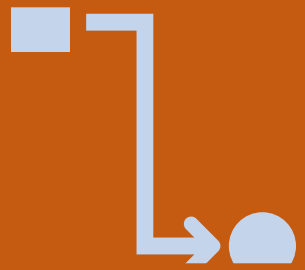
What evidence is there in primary care?

Epidemiology

- Non-adherence most common (n=62) – 12.2-97.8%
- PIP (n=20) – antidepressants 20-43.7%, antipsychotics 24-53.4%
- Medication errors (n=11) – interactions > dosing errors > monitoring errors



Aetiology

- Non-adherence (19/25), no data on medication errors or ADEs/ADRs
- Causal factors: communication breakdown important
- Risk factors: increasing polypharmacy strong link. Other factors reported

Interventions

- Non-adherence (11/18) - most positive, 6/18 reported little change
- Medication review (6), coaching programs (3), multimodal (3), financial incentives (2), teleservice (2) and use of technology (2). **55% used pharmacist**

Ayre MJ, et al. BMC Psychiatry 2023;23:417.

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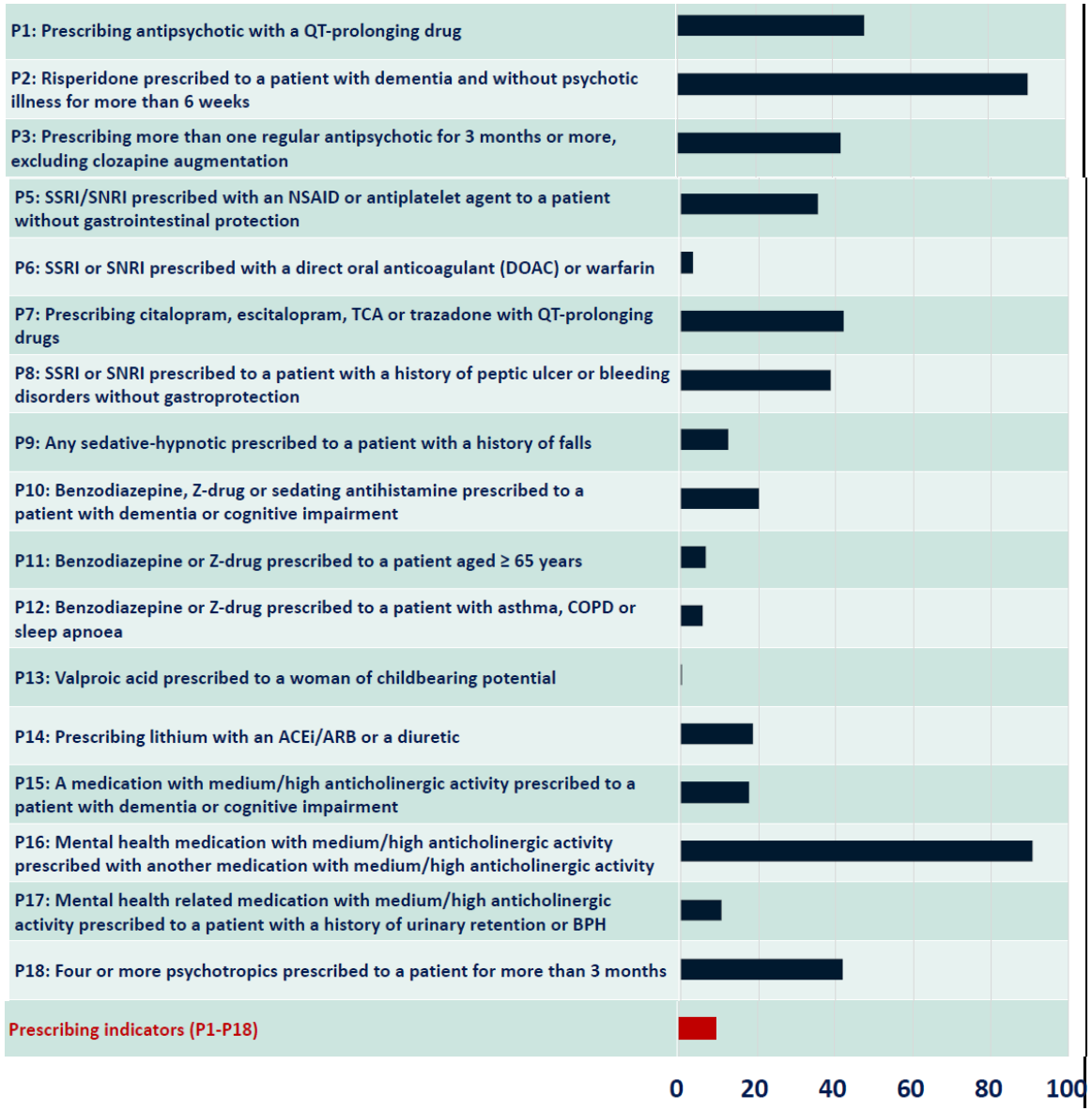
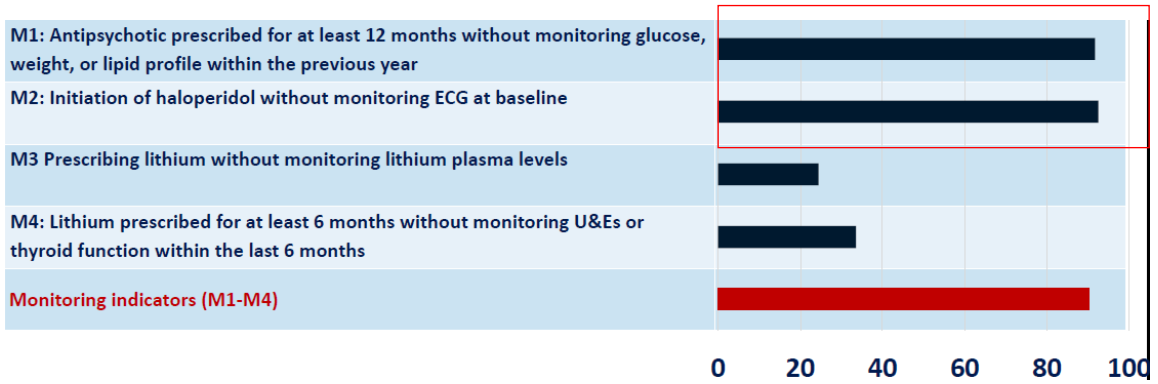
Potentially Hazardous Prescribing





Khawagi WY, et al. BMJ Qual Saf 2021;0:1-15.

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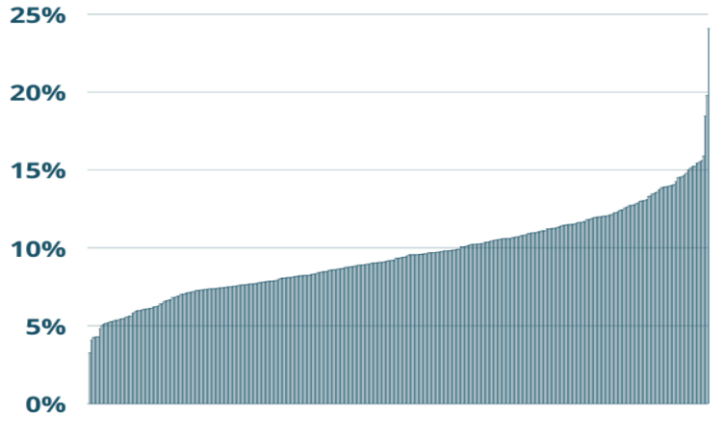
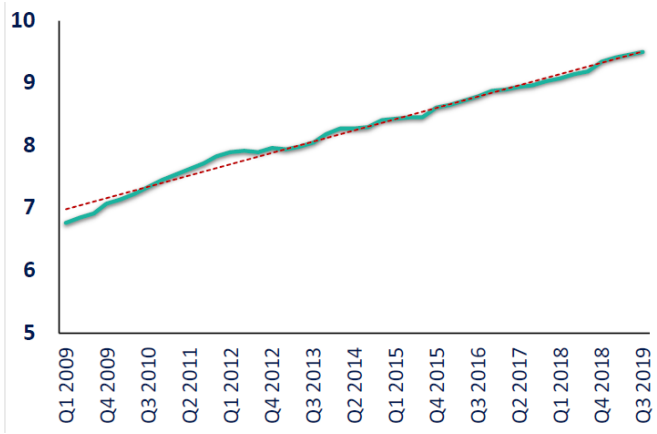
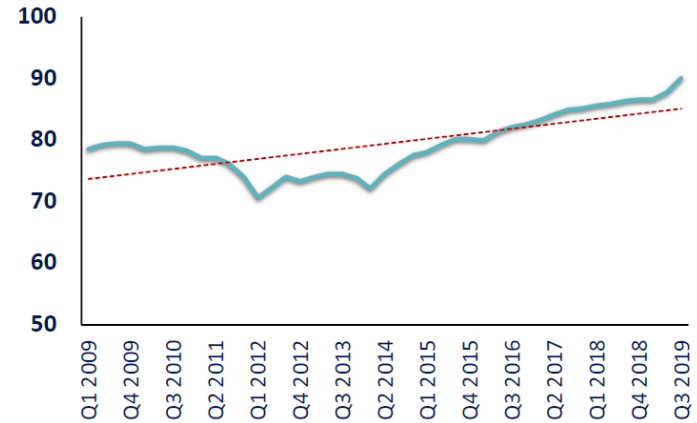
Potentially Hazardous Prescribing



Large variation noted between practices





Prevalence of indicators increasing over time

- Increased risk of receiving potentially hazardous prescribing:

Age (complex!) | Female | >10 medications | Deprived areas

- Further exploration needed r.e. prevalence increasing over time

Khawagi WY, et al. BMJ Qual Saf 2021;0:1-15.

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unDerstandIng the cauSes of mediCation errOrs and adVerse drug evEnts for patients with mental illness in primaRy care (DISCOVER): a qualitative study

- Aim: to understand the causes of medication incidents (prescribing, dispensing, administration, monitoring) and/or harm they cause patients with mental illness in primary care
- Method:
    - Recruiting via social media and professional networks during 2022
    - Interviews with 26 health professionals
        - 14 pharmacists, 5 GPs, 5 nurses, 2 psychiatrists
        - 10 working in general practice, 6 in community pharmacy, 10 in community mental health care
        - Analysis using London Protocol

Taylor-Adams S, Vincent C. Systems Analysis of Clinical Incidents: The London Protocol. [Internet]. London: Imperial College London; 2004
Link: https://www.imperial.ac.uk/media/imperial-college/medicine/surgery-cancer/pstrc/londonprotocol_e.pdf

Pharmacy Research UK

Ayre MJ, et al. Submitted.

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The DISCOVER study

Individual staff

- Knowledge
- Diffusion of responsibility
- Power dynamics

Working environment

- Staffing and skill mix
- Workload and time

"In general practice we [primary care clinicians] will leave things as they are. If they've been signed off by a psychiatrist or even if like a patient is quite well you think, well I don't want to rock the boat. Rather than thinking well, actually are they on too much medication now." (PHAR11, General practice/PCN, qualified 10-20 years)

"A lot of it was down to staff, the use of agency staff, not having substantive people that knew [the patient]. So there was lots of people coming in and out. There was lots of people taking different approaches with him." (NURSE03, Community mental health services, qualified 10-20 years)

Ayre MJ, et al. Submitted.

Pharmacy Research UK

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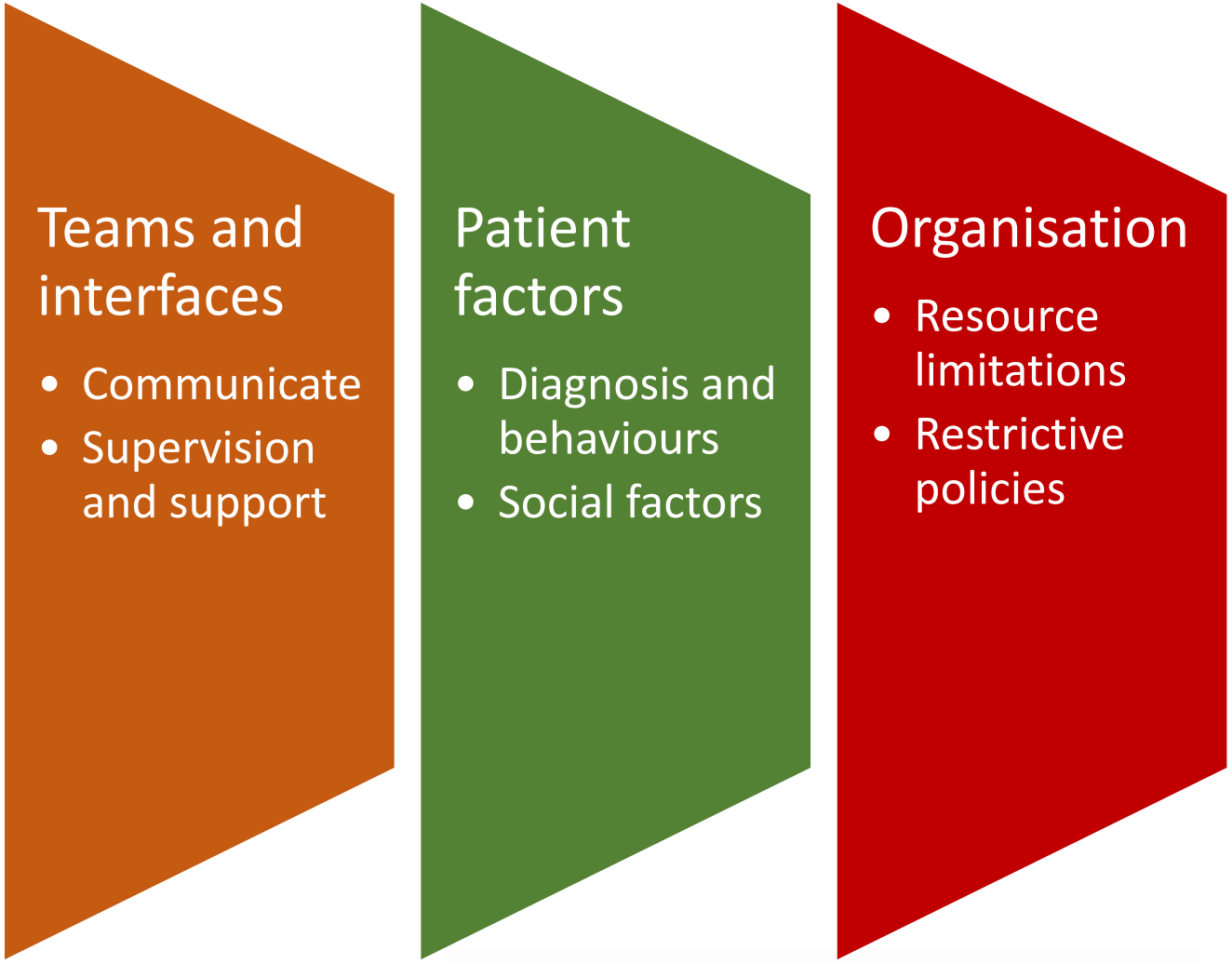
The DISCOVER study



Ayre MJ, et al. Submitted.

Pharmacy Research UK

"The handwritten letter was just like a blank page and it just said, please can you start quetiapine MR 50 mg once a day, something like that, and just signed by the consultant. And that just didn't have any information about the shared care protocol, anything like that."
(PHAR13, General practice/PCN, qualified 10-20 years)

"He [the patient] was presenting in A&E with self-harm, presenting in the practice, three or four times a week, so I tried to get him seen in specialist care, as often happens, you get a letter back saying, they don't meet the threshold. I made a bit of a fuss, contacted the MP [member of parliament]…"
(GP03, General practice, qualified >20 years)

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What does this mean?

- We know that non-adherence is a big issue, and potentially inappropriate prescribing too especially for older patients.
- We are seeing some **potentially unique factors** to care for people with mental illness that may be driving medicines safety issues.
  - Lack of knowledge, input from specialist services/interface, patient factors
- We need to turn our attention to ways to improve due to a lack of evidence, and pharmacy teams can play a key role
- We need to consider the patient view
  - Soon to be published research from PhD student Matthew Ayre!
  - Patient priorities have been identified:
    - Staff competence/listening, waiting times, staffing levels, community service provision all important

Berzins K, et al. Health Expect 2018;21(6):1085-94.

What does this mean?

- We could adopt a targeted approach
  - Prescribing indicators, audit, target medications (e.g. antidepressant NMS in community pharmacy)
  - Perhaps use of target medications/situations can help

- Can we work inter-professionally and across care interfaces to tackle these issues
  - General practice acting alone may not be enough – seen as ‘specialist prescribing’ and ‘lacking knowledge’
  - ICBs, PCNs, community mental health teams/specialist pharmacy teams
  - Shared decision making important

Future Practice Plus Webinars

Date	Key themes	Guest Presenters
29th Nov 2023	PrescQIPP 2023 Award winners Antidepressant deprescribing clinic Improving hypertension case finding, diagnosis and treatment	 Raz Saleem Pharmacist - Medicines Management Team South Yorkshire ICB Beth Rushton Senior Clinical Pharmacist Nottingham West PCN
13th Dec 2023	Antimicrobial Stewardship	Elizabeth Beech MBE Regional Antimicrobial Stewardship Lead NHS South West Naomi Fleming Regional Antimicrobial Stewardship Lead NHS East of England
17th Jan 2024	Palliative Deprescribing	Dr Jo Hayes Consultant in palliative medicine, Medical Director of the Marie Curie Hospice, Penarth

PrescQIPP Practice+