

Co-developing digital tools to support the management of complex patients in general practice

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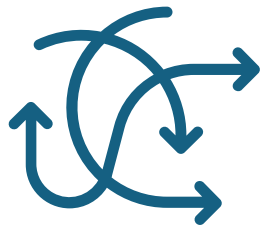
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NIHR | National Institute for
Health and Care Research

Presenting work from NIHR-funded projects DynAIRx, BRIT and PDG NIHR206947

Background

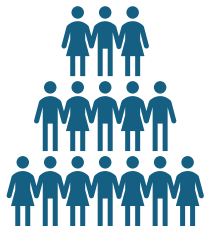
General practice is facing growing responsibilities in managing patients with complex health needs, e.g. multimorbidity



Information can be time consuming to assemble and understand



Current guidance is limited – single disease, 2-medicine combinations



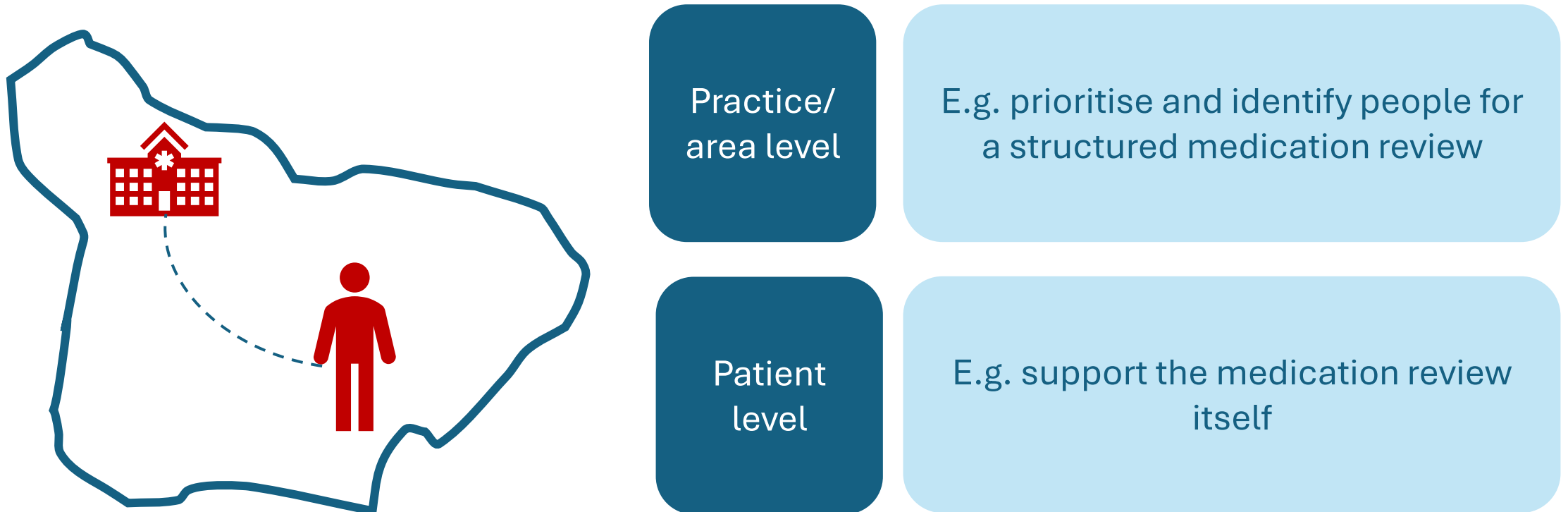
Heterogenous population



Some information may require 'intelligent processing' to be useable

'Knowledge support' tools – a solution?

Digital tools that **integrate with electronic health records** to provide **intelligent, personalised** information in **real-time**



Mixed-methods co-development workshop

Workshop aim: to obtain feedback from general practice healthcare professionals about the development of digital tools to help plan and conduct medication reviews

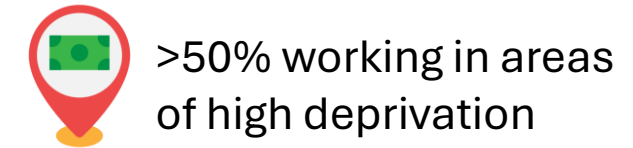
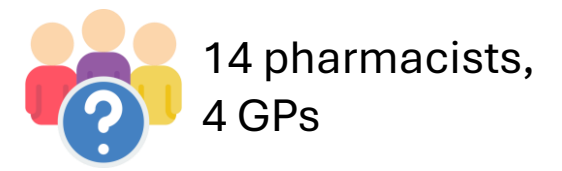
“How useful would it be to....?”



1. What do healthcare professionals want from a digital tool to inform medication reviews?

2. What criteria may be needed to ensure successful and sustainable adoption?

Results: participants wanted knowledge support tools that....



Provide intelligent indicators of patient risk to supplement current searches

- Risk of medication-related harm
- Out of range results
- High doses/durations
- Unfulfilled monitoring

DON'T want

Unexplained risk &
Information overload

Pull data from EHR records to provide relevant summaries of a clinical profile

- Events associated with adverse outcomes (e.g. falls)
- Drugs known to cause harm


Use AI to improve navigation and completeness of EHRs

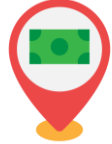
- Potentially missing codes
- Summarisation of or linking to potentially relevant letters

Provide patients with personalised information outside of consultations

- What they're taking and why
- Non-pharmaceutical options

Perceptions of current resources and knowledge support tools

 14 pharmacists,
4 GPs

 >50% working in areas
of high deprivation

Before the workshop

Statement (0=strongly disagree, 10=strongly agree)	Mean (SD) rating
I have sufficient information and resources to plan medication reviews	6.1 (2.1)
I have sufficient information and resources to deliver medication reviews	6.3 (2.3)

Table 1: Participant's perceptions of current information and resources

After the workshop

Statement (0=strongly disagree, 10=strongly agree)	Mean (SD) rating
I would feel confident using a digital tool to help plan medication reviews	8.3 (1.8)
I would feel confident using a digital tool to conduct medication reviews	8.6 (1.4)
I would feel confident in using AI-powered digital tools that predict side-effects for a medication review	7.2 (1.8)

Table 2: Participant's confidence in using digital tools to assist with medication review tasks



6 public contributors,
1 lived experience
researcher

Patient and carer perspective

Personalised **information leaflets** that could....

1. Encourage management of health
2. Inform carers
3. Include those who are not digitally confident or enabled
4. Integrate general practice and community/third-sector services
5. Provide patients with an opportunity to reflect on a medication review



To multimorbidity and beyond

- Lack of confidence and resources for managing self-harm in primary care
- Research has called for improvements to:
 - Signposting to aftercare
 - Providing tailored, personalised care
 - Monitoring and communication about medicines
- Awarded **NIHR Programme Development Grant** to develop a knowledge support tool to inform general practice management of self-harm



Prof. Tjeerd van Staa
PI



Harriet Cant
Co-PI

*“Improving GP services
for self-harm may
prevent many painful
experiences for patients
later on”*

Public co-applicant

Thank you

Acknowledgements

- Professor Tjeerd van Staa and the BRIT team for their work on learning health systems and knowledge support tools
- Professor Ian Buchan, Dr Lauren Walker, Dr Aseel Abuzour, Dr Alan Woodall and Sam Wilson for their work on structured medication reviews and multimorbidity
- Francine Jury, Dr Alan Woodall, Dr Aseel Abuzour, Dr Ali Fahmi, Matin Ahmed and Sam Wilson for co-facilitating and/or analysing the workshops
- Dr Erin McCloskey and Matin Ahmed for their help in gathering patient perspectives
- Professor Tjeerd van Staa, Professor Nav Kapur, Dr Faraz Mughal, Dr Leah Quinlivan, Sadika Asmal, Professor Pete Bower, Professor Roger Webb and Jodie Westhead for their work in extending the knowledge support tool to self-harm

References:

