Health Innovation Manchester

Meds Safety

AHSN PSC contribution

Discover Develop Deploy

Medicines Optimisation – PINCER

A CONTEXT

Medication errors in primary and secondary care are an important cause of morbidity and mortality
In Primary Care, 1 in 20 items with an error, 1 in 550 with a serious error
Over 1 billion items dispensed in 2015 = 1.8 million serious prescribing errors. Preventable medication-related admissions to hospital account for around 1 in 25 hospital admissions with an annual cost of £650m per year
4 classes of drug account for over 50% of these admissions: Big implications in terms of patient safety and costs
PINCER demonstrated a 44% reduction in monitoring errors and a 29% reduction in prescribing errors and an average cost reduction of £2,769 per practice (e.g.. in admission avoided) and an increase in quality of life for patients of 0.81 QUALY per practice.

B with these INPUTS

PRACTICE
AHSNs support PINCER Scale up across England

PUBLIC
Greater awareness of harm from medication errors

POLICY
Clear support from NHS England to deploy PINCER as medication safety tool to reduce harm from medication errors

C we will carry out the following ACTIVITIES

AHSNs have signed up to deploy PINCER in first, second or third wave

Each AHSN has a roll out plan locally to support CCGs and Practices to use PINCER in line with RTC

Each AHSN supports local CCG to benchmark medication error rates by utilisation of Chart Online

All CCGs in that AHSN have a roll out plan to deploy PINCER and support practices with medication with review of high risk patients

AHSNs reach funding agreement with PRIMIS to support PINCER roll out (4 AHSNs in year 1, 4 in year 2, 4 in year 3 and 3 in year 4

AHSNs support development of QI methodology and other skills for PINCER deployment.

Enabling activities to support above:

Patients attend for review and present for outstanding blood tests etc.

NHS England reinstate PINCER measures as part of Meds Optimisation dashboard

As part of WHO global challenge NHS England support strongly the deployment of PINCER across all practices.

Liaison with HEE around common issues identified by PINCER (e.g. prescribing of high risk medicines)

Links to secondary care systems shown to reduce prescribing errors in secondary care. E.g. Epiffany.

D to deliver the following OUTCOMES

Practice conducts two annual downloads of PINCER audit tool and action plans in between to address risk identified.

All high risk patients are called for medication review.

All practices upload their data (anonymously) to Chart Online to create a national medication safety data base

Pharmacists are trained and can support QI

Commissioners incorporate findings into business plan

Improvements seen in all 11 indicators

E with these long term IMPACTS

Demonstrable reduction in number of patients exposed to medication error

Reduction in avoidable admissions due to medication errors

AHSN and PINCER contribution to 50% reduction in medication errors over 5 years. (WHO)

Cost savings are realised

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Medicines Optimisation - TCAM

A CONTEXT

Medicines Use Reviews (MURs) and New Medicines Service (NMS) are under utilized
Those most at risk of medication errors may not be highlighted to Community Pharmacy e.g. those recently discharged from hospital.
It is estimated that 60% of patients have three or more changes made to their medicines during a hospital stay. The transfer of care process is associated with an increased risk of adverse effects (AEDs)
30-70% of patients experience unintentional changes to their treatment or an error is made because of a lack of communication or miscommunication. Only 10% of elderly patients will be discharged on the same medication that they were admitted to hospital on, and 20% of patients have been reported to experience adverse events within 3 weeks of discharge, 60% of which could haven been ameliorated or avoided

B with these INPUTS

PRACTICE
AHSNs to lead Trusts and LPCs to work together to establish referral pathways.

PUBLIC
Public come to expect to receive support on returning to community on discharge from hospital

POLICY
Trusts encouraged to set up referral pathways and Community services supported to deliver.

C we will carry out the following ACTIVITIES

Each AHSN has a roll out plan to support Trusts to establish TCAM Pathway

All suitable patients receive referral to community pharmacy (or GP Pharmacist where this possible/required)

AHSN measures number of referrals made by Trust that are live

AHSN measure percentage of referrals actions and have plans in place to address low uptake.

AHSNs facilitate cross sector working and sharing of learning

Enabling activities to support above:

AHSN network to publish TCAM tool kit including definition of referral criteria.

AHSNs establish CAM locality group in each area in the run up to going live.

Public supported to understand the benefits of support around medicines on discharge home

AHSNs develop and support communications to raise awareness of TCAM pathways and rationale

Policy support for medicines pathway on discharge from hospital care.

D to deliver the following OUTCOMES

All AHSN have a report of percentage of trusts in AHSN who are live

All AHSNs have plans in place to drive up increase in uptake of referrals

Benchmarking across all AHSNs is made available quarterly

Patients are routinely assessed and referred to a pharmacist following discharge from hospital

E with these long term IMPACTS

Reduction in avoidable readmissions in line with NuTH data are realised.

Low levels of action on referral are addressed and uptake increases to derive maximum benefit

Patients come to expect consultation about their medicines when they return home after a hospital stay and require help.

Savings linked to reduced readmission rates at 30, 60 and 90 days realised and quantified.

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Medicines Optimisation – Patient and public engagement

A CONTEXT

The World Health Organization (2017 Medication Without Harm) stated that Patients and the public are not always medication-wise. They are too often made to be passive recipients of medicines and not informed and empowered to play their part in making the process of medication safer.
AHSNs to lead a campaign to shift the culture from a passive state of receiving prescriptions for numerous medicines to a much more engaged approach using the "Me and My Medicines" work as the central platform supported by a range of multi channel activity.

B with these INPUTS

PRACTICE
We will support patients to ensure they are perceived as experts in their own care.

PUBLIC
The public will embrace playing a greater role in their medicines taking

POLICY
NHS England and AHSNs will work collaboratively to support common messages about medicines (especially polypharmacy)

RESEARCH
Evaluate what messages and platforms have the greatest impact on the most patients in terms of engaging them in their medicines taking.

C we will carry out the following ACTIVITIES

Wessex AHSN to lead the development of a local rollout plan with key stakeholders such as Age UK, PPGs, Health Watch. "Me and my medicines campaign" to be rolled out across all AHSNs

Communication plan with full stakeholder engagements developed and deployed by each AHSN.

The "meet Mo" series of patient facing animations to be developed to help socialise some of the issues with medicines with patients

Develop greater links to PPGs and other key stakeholder to ensure key messages are promulgated to the right people via the right channels.

Enabling activities to support above:

Develop an electronic patient medication needs assessment tool for people taking multiple medicines.

Provide resources to STPs to support STPs in addressing inappropriate polypharmacy and medication safety.

Work closely with NHS England comms to ensure that the AHSN patient facing work is complementary to RMOCs and NHS England national objectives.

NHS E comms to enable the use of NHS platforms such as NHS choices to promote key messages around medicines and polypharmacy.

D to deliver the following OUTCOMES

Patient medication charter to be used in consultations where medicines are prescribed

Shift in culture from patient demand for drugs to a more measured approach to only having medicines that are needed, in numbers that are manageable for patients and their carers.

Becomes unacceptable (for both clinicians and patients themselves) to prescribe multiple medicines on top of a large number of regular medicines to patients with long term conditions without an holistic medication review.

Patients use technology to inform prescribers of their level of health activation and what they are prepared to toleration with respect to multiple medicines.

Patients understand and accept that their medicines will be regularly reviewed and may be changed or stopped in consultation with them.

E with these long term IMPACTS

Patients are not prescribed medicines that they have no intention of taking

Patients are more engaged with their medicines and only take what they need

Harm from medicines that aren't needed is reduced

Medication waste is reduced.

Patients and the public have greater respect for the medicines they are prescribed and the value of those medicines.

Patients know where to go to get help and support with their medicines.

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PINCER: scale of the problem

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- Medication errors in primary and secondary care are an important cause of morbidity and mortality
- Prescribing errors – The PRACtICe Study[1]
  - 1 in 20 items with an error – 1 in 550 with a serious error
  - Over 1 billion items dispensed in 2015 = 1.8 million serious prescribing errors
- Preventable medication-related admissions to hospital
  - These account for around 1 in 25 hospital admissions
- 4 classes of drug account for over 50% of these admissions:
  - anti-platelets, non-steroidal anti-inflammatory drugs (NSAIDs), diuretics and anticoagulants

[1] Avery T, Barber N, Ghaleb M et al. The PRACtICe Study (PRevalence And Causes of prescrIbing errors in general practiCe). A report for the GMC. Nottingham: October 2011

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PINCER

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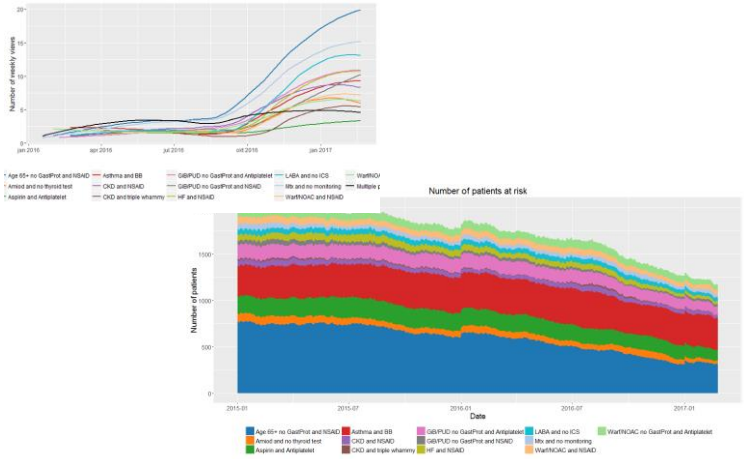

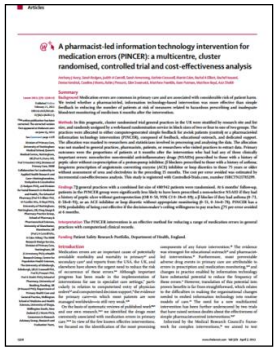
Articles

A pharmacist-led information technology intervention for medication errors (PINCER): a multicentre, cluster randomised, controlled trial and cost-effectiveness analysis


Articles

A pharmacist-led information technology intervention for medication errors (PINCER): a multicentre, cluster randomised, controlled trial and cost-effectiveness analysis

- Three clear options
- Build searches in current system
- Use the PRIMIS indicators and sign agreement and complete training and audit cycles
- Use SMASH (PINGR)
- Implications
  - Training
  - Sign up
  - National Programme

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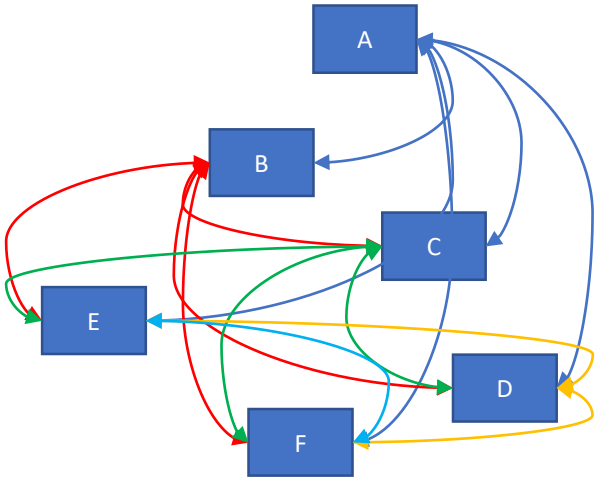
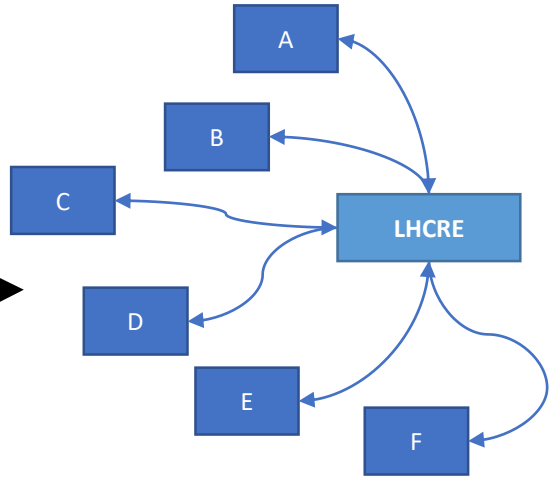
Integrated systems



Simplification

Interoperable systems



6 systems require 15 connections.
Every system has 5 separate connections.

Systems are integrated with bespoke connections.

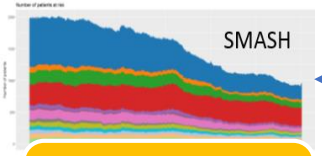
Every system has just one connection.

They also need to be interoperable - they can be connected like lego bricks using standard API's

GM wide stratified Health Checks. In flight. Will benefit from LHCRE

Incentive Schemes
In Flight. (CARROT) Could benefit from LHCRE

Ecosystem of Patient Apps.
RESEARCHING/LARGE POTENTIAL
Data can flow between apps with flow controlled by the patient.
Patient PODs belong and are controlled by the Patient.
Would allow social prescribing, incentives, contextual apps (COPD, CV etc) to be shown to the patient with JCB having control of messages and certain app relationships.
Data could flow back to LHCRE from apps.
Implications for Pharma, Research, Mobile, Finance, Manufacturing…



GM Wide Medications Review (e.g. contra-indications). In Flight

GM Wide Contingency Plans. IN FLIGHT (also exposed to U&EC)

GM Wide Care and Support plans. IN FLIGHT
Used for MDT's where multiple organisations can contribute.
Initially via Graphnet

U&EC. IN FLIGHT
Visualisation of the Longitudinal Record inside the U&EC Adastra system for NWAS and out of hours.

Will also allow deaths reporting to be recorded once in the GP system and then exposed via the Adastra system. Preventing dual entry by GP's. Initially via Graphnet. Will move to LHCRE

LHCRE
Systems can consume/contribute via API's

National De-ID/Re-ID

Analytics and Data Science Platform

Persistent harmonised Clinical/Care Data Repository

Semantic Harmonisation

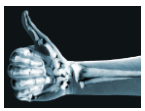
Identity Reconciliation

Integration Layer

Record Locator Service

Graphnet

GP SC AC MH Data Sources

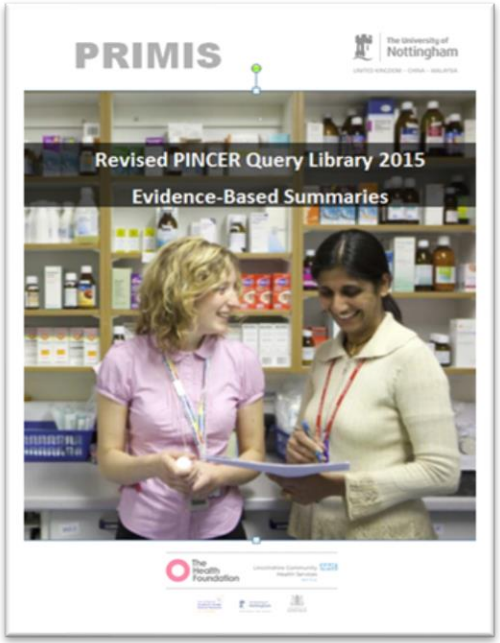


PACS/VNA
In Flight.
(Extending to Digital Pathology and other Pathology services)

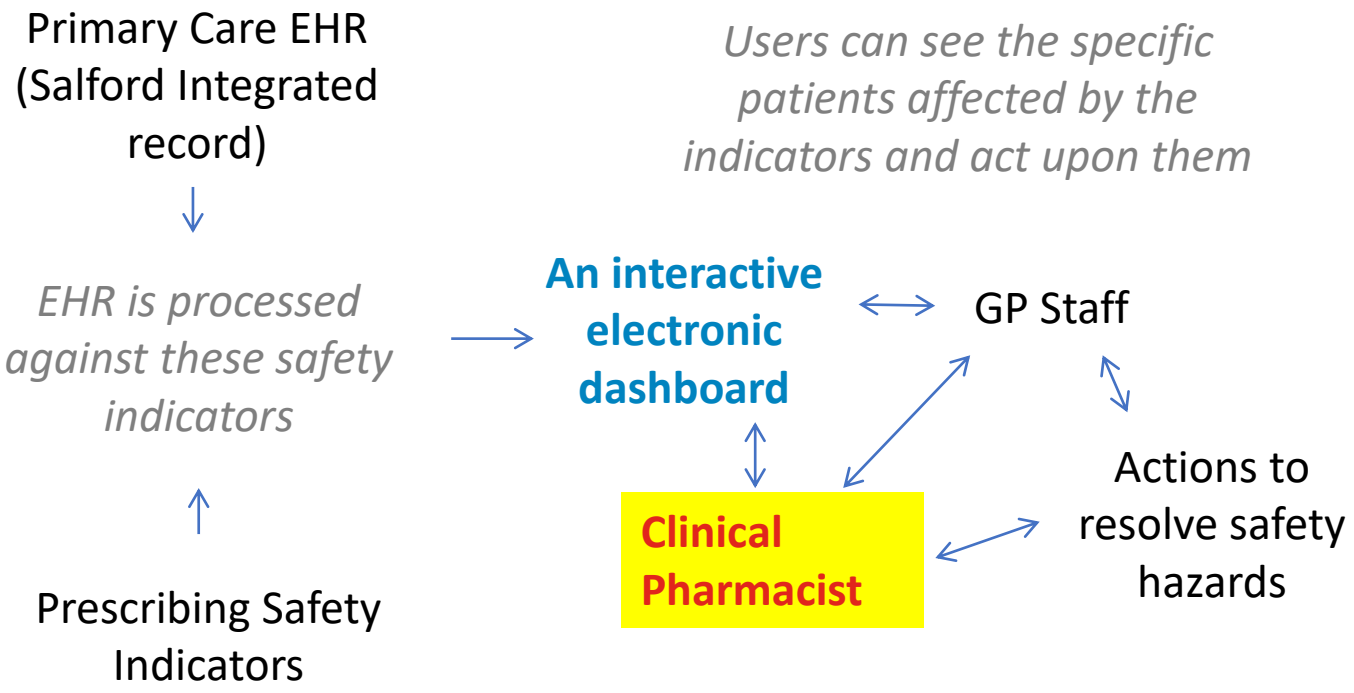
Health Intelligence
Very interested in statistically comparable synthetic data and AI data robot. Could make data open and remove IG barriers

Action learning

1. What is PINCER?
   - Evidence base
   - Indicators
2. The PINCER intervention
   - Triage and review
   - Root cause analysis
   - Action Planning and feedback
3. Lessons Learnt
   - Reflection and planning

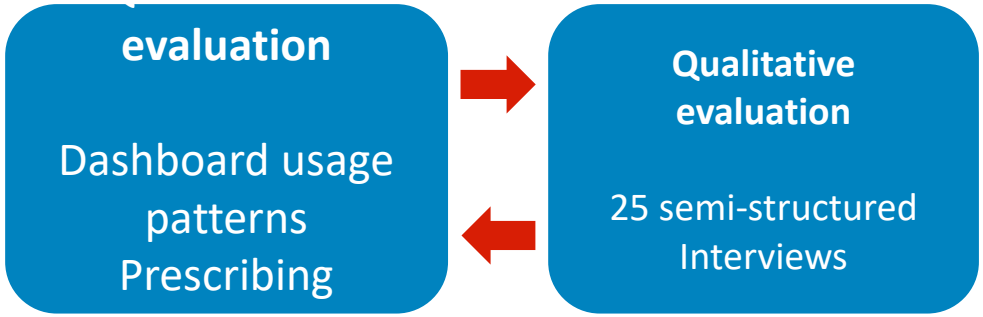


The SMASH intervention – PINCER in Salford context



SMASH Intervention

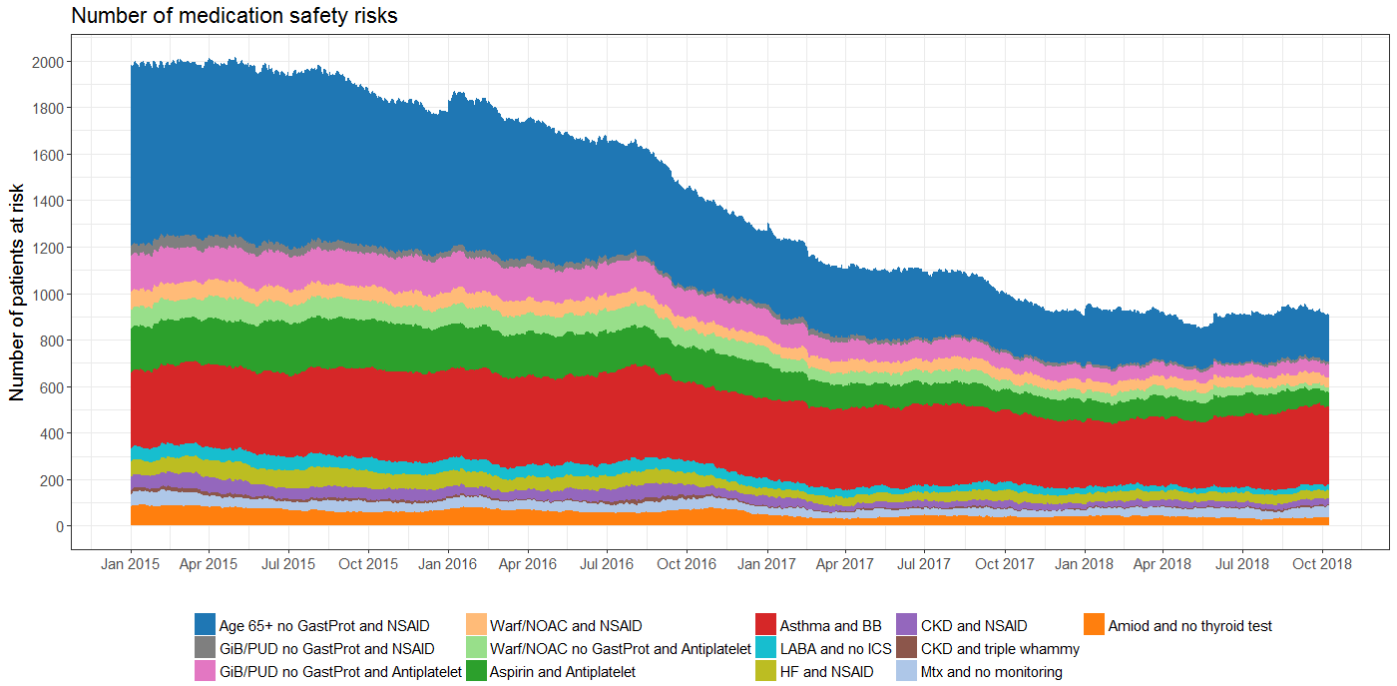
- Intervention starts with a visit from a SMASH-trained pharmacist
- The pharmacist introduces the dashboard to the practice
- Works closely with the practice initially
- Each practice is monitored for a 12 month period



Quantitative evaluation

- Are fewer patients at risk?
- Is the reduction sustained?
- Is there a reduction in serious adverse events
  - GI bleed, asthma exacerbation, hospital admission, death
- Is it cost effective?
  - Pharmacist time, SMASH development and support

Impact snapshot and ongoing work



Formal data analysis for completion early 2019

Systematic review and RCA

Reduce risk of harm to current patients

- Review risk and if necessary stop the NSAID or add gastroprotection
- Address non-adherence and refusal

Review system failures identified and reduce risk in future e.g.

- Read codes and priorities are correct.
- Group discussion about patients identified to share learning.
- Education session.
- IT clinical decision support systems
- Non-adherence to key medication

Consider wider impact

- Review other groups of NSAID users at high gastric risk.
- Review use of NSAIDs in practice
- Review other non-adherent groups.