

Oxford AHSN case study

Date: Q2 2019/20

Programme/Theme: Clinical Innovation Adoption

Title: Preventing prescribing errors with PINCER

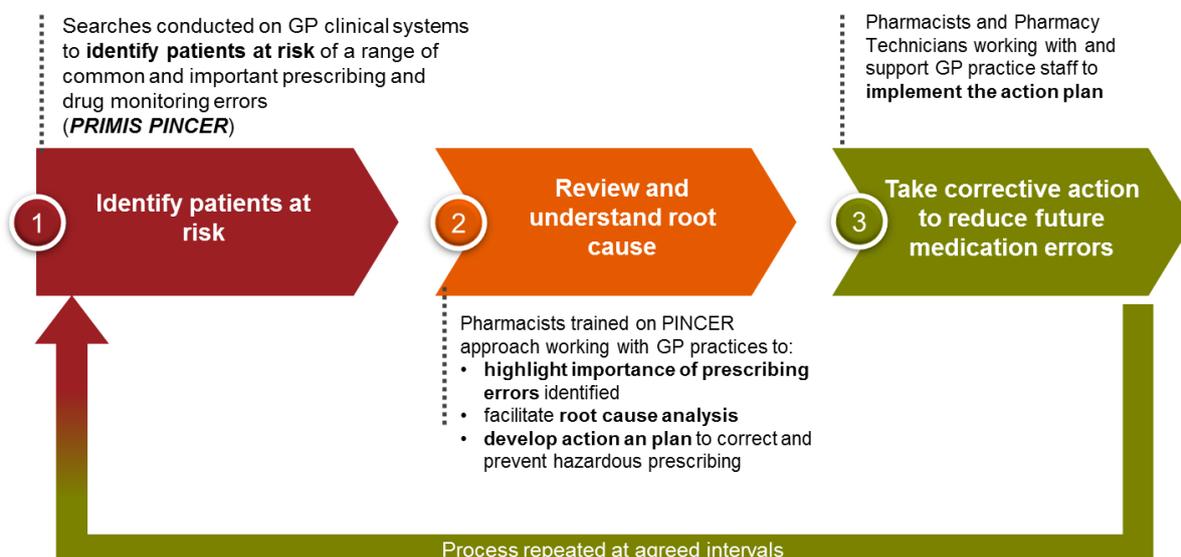
Overview summary

The Oxford AHSN and partners in Clinical Commissioning Groups (CCGs) have implemented a collaborative work programme to reduce hazardous prescribing in primary care through PINCER, an evidence-based approach to reducing prescribing errors. So far it has been implemented in over 80% of practices in Berkshire, Buckinghamshire, Oxfordshire and Milton Keynes.

Challenge identified

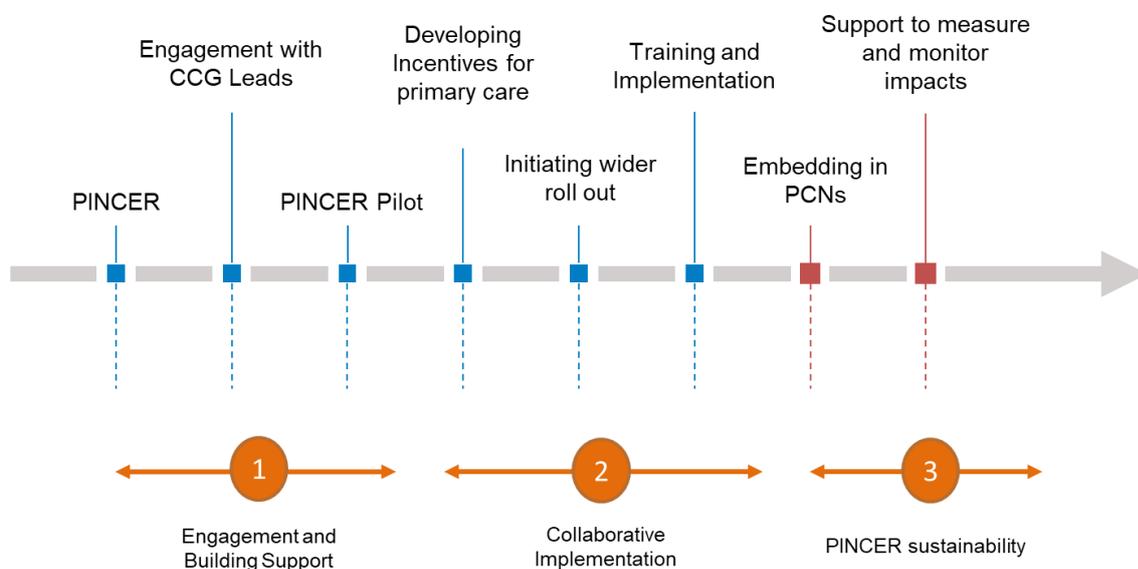
Prescribing errors in general practice are an expensive, preventable cause of safety incidents, hospitalisations and, in some cases, death. Serious errors affect one in 550 prescription items, while hazardous prescribing in general practice contributes to around 1 in 25 hospital admissions. Outcomes of a trial published in [The Lancet](#) showed a reduction in error rates of up to 50% following adoption of PINCER – a pharmacist-led IT intervention to reduce clinically important errors in general practice prescribing. A published [economic analysis](#) showed introducing PINCER was cost effective, demonstrating an increased quality of life for patients (0.81 Quality Adjusted Life Years per practice)ⁱ and an overall reduction in costs of £2,679 per practice. PINCER was selected in 2018 as one of seven national projects on which all AHSNs across England would deliver in 2018/19 and 2019/20.

PINCER comprises three core elements:



The software component of PINCER is based on a set of computerised queries which can be run on GP clinical systems to identify at-risk patients who were being prescribed drugs that are commonly and consistently associated with medication errors. These “indicators” include the prescription of nonselective non-steroidal anti-inflammatory drugs (NSAIDs) and beta-blockers, and the monitoring of angiotensin-converting-enzyme (ACE) inhibitor or loop diuretics, methotrexate, lithium, warfarin, and amiodarone.

Actions taken



1. Engagement and building support

The PINCER project was raised at a joint workshop with heads of medicines management in Berkshire, Buckinghamshire, Oxfordshire and Milton Keynes in September 2018. The Oxford AHSN, along with four out of five of its CCGs, agreed to support a region-wide pilot to evaluate the PINCER programme and to develop a plan for wider roll out. Participants recognised a positive impact on patient safety and practice resource, with system changes saving staff time in reviewing/correcting hazardous prescribing. Participating practices found the process of reporting findings and engaging practice staff very positive with GP teams happy to support developing an action plan to address system issues. This was also seen to create an opportunity to speak more generally about prescribing issues.

In addition, potential barriers to wide-scale roll-out of training were assessed and addressed. This included:

- moving PINCER indicators from CHART software and into the GPs clinical systems
- streamlining and digitising training to allow PINCER leads in the region to join remotely

- expanding access to PINCER, to include practices without a practice-based pharmacist but which had a willing and engaged GP lead.

2. Collaborative Implementation

CCG partners in the region developed plans for local implementation to fit with the needs and ways of working within their local systems. For some CCGs, implementation was linked to local incentive schemes, others decided to use existing levers around QI and prescribing safety in the GP contract. Implementation of PINCER was built around three action learning training sessions which guide nominated PINCER leads for practices through the process of implementation. The Oxford AHSN and CCG leads across the region developed a comprehensive training plan for the first quarter of 2019/20 which offered all practices in the region an opportunity to join the PINCER initiative action learning training sessions. Two of these were delivered between March and June 2019 - ALS1 as an interactive webinar and ALS2 a face-to-face workshop. Both were delivered to 13 localities across the region. Practices are now developing local action plans based on the PINCER audit data and root cause analysis methods. Many practices have now submitted baseline data offering a rich source of comparative data around prescribing errors for practices, CCG and the Oxford AHSN.

3. PINCER sustainability

Whilst financial levers and incentives are in place to support PINCER implementation in 2019/20, in order to ensure PINCER is sustainable in the new models of working around new primary care networks (PCN), the Oxford AHSN is supporting PINCER training for all PCN pharmacists. Plans are in place to re-run a series of action learning sets for these newly appointed pharmacists.

Impacts/outcomes

- The PINCER process has already yielded some excellent examples of quality improvement around prescribing in primary care. The ambition is to capture these initiatives and activities in case studies on the Oxford AHSN website: <https://clinicalinnovation.org.uk/project/pincer/>
- Over 200 pharmacists and GPs have now been trained on how to use the PINCER tools and on using root cause analysis and QI techniques to improve practice systems and reduce rates of hazardous prescribing.
- 194 practices (over 80% of practices in the Oxford AHSN region) have implemented PINCER - running PINCER searches and uploading baseline data between June and August 2019.
- Six-month impact data from the PINCER pilot carried out in 25 practices suggests that over 80% of practices have reduced numbers of patients at risk against at least five PINCER indicators.
- Six-month impact data on the wider roll-out is expected in early 2020 - the Oxford AHSN aims to assess the numbers of patients impacted by the PINCER intervention, and improvements in actual numbers of prescribing errors.

Future plans

- Continue to support practices and CCGs with PINCER implementation and QI activity where required
- Develop a repository for excellent practice for the benefit of practices in the region
- Use PINCER baseline data to develop medicines optimisation strategy.

National priorities addressed

- Care and Quality
- Patient Safety
- Medication Safety
- Driving Economic Growth

AHSN priorities covered

- Medicines optimisation
- Patient safety
- Medication safety

Start and end dates

2018-ongoing

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