Medicines optimisation: Systems for identifying, reporting and learning from medicines-related patient safety incidents.
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The recent The National Institute for Health and Care Excellence (NICE) guidance on medicines optimisation makes eight overall recommendations to ensure the best possible use of medicines. Medicines optimisation is defined as ‘a person-centred approach to safe and effective medicines use, to ensure people obtain the best possible outcomes from their medicines.’ (1)

This is the first of a series of eight articles discusses the recommendations pertaining to medication safety and provides insights into the application and implications for practice.

Preventable patient harm as a result of medicines is well recognised across the world (2-4) and various initiatives have been tried to improve patient safety. (5-7). The safety recommendations of the National Institute for Health and Care Excellence (NICE) medicines optimisation guidance comprise key messages and learning from a series of reports and alerts. (8-10). The guidance emphasises the need for systematic identification, reporting and learning from medication related patients safety incidents. Box 1 provides a summary of the recommendations grouped into four overarching themes.

**Box 1 Safety Themes: NICE medicines optimisation guidance**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Summary of recommendations</th>
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<tbody>
<tr>
<td>Openness and transparency</td>
<td>Organisations should support a person centred, ‘fair blame’ culture.</td>
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<td>Explain to patients, and their family members or carers where appropriate, how to identify and report medicines related patient safety incidents.</td>
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<td>Culture</td>
<td>Consider assessing the training and education needs of health and social care practitioners to help patients and practitioners to identify and report medicines related patient safety incidents.</td>
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<td>Report all identified medicines related patient safety incidents consistently and in a timely manner, in line with local and national patient safety reporting systems, to ensure that patient safety is not compromised.</td>
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<td>Consider exploring what barriers exist that may reduce reporting and learning from medicines related patient safety incidents.</td>
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<td>Systems for identification and reporting of medicines related patient safety incidents</td>
<td>Ensure that robust and transparent processes are in place to identify, report, prioritise, investigate and learn.</td>
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<td>Consider using multiple methods, for example, health record review, patient surveys and direct observation of medicines administration.</td>
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<td>Consider applying the principles of the PINCER intervention to reduce the number of medicines related patient safety incidents, taking account of existing systems and resource implications.</td>
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<td>Consider using a screening tool to identify potential medicines related patient safety incidents in some groups such as adults, children and young people taking multiple medicines or with chronic or long term conditions and older people.</td>
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<tr>
<td>Learning</td>
<td>Ensure that national medicines safety guidance, such as patient</td>
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What are the key factors in medication safety?

Openness and transparency are critical to safety. These are all encompassing, not just within and between healthcare teams and organisation, but more importantly with the patient as well. It has been suggested that this is the ‘magic pill’ that will result in improved outcomes, fewer medical errors, more satisfied patients, and lowered costs of care. (11) In the NHS, dashboards are being developed to increase the visibility of safety. Other data from the dashboards is designed to help Clinical Commissioning Groups improve and understand how well patients across the country are being supported to use their medicines (12) [NHS England MO dashboard].

Of the many factors that influence transparency and openness, the culture or 'the way we do things round here' is fundamental. The safety culture of an organisation has been described as the ideas and beliefs that all members of the organisation share about risk, accidents and ill health. In healthcare, this is when staff have positive perceptions of psychological safety, teamwork, and leadership, and feel comfortable discussing errors. (13) Thus the safety culture underpins the willingness to be open, to develop and use systems to identify and report risks as well as incidents and to use the learning to improve care. An effective safety culture requires clinical leadership, visibility of management, good communication and individual participation. (13)

Risk mitigation strategies and recommendations have been made through thematic and trend analysis of reports to the National Reporting and Learning System (NRLS) resulting in the publication of patient safety alerts and the development of the Never Events Framework. The guidance recommends wider adoption and implementation of these systems and the use of new tools such as PINCER (14) [see box 2] or START/STOPP (15) to pro-actively manage medication risk at organisational as well as individual level. These tools provide a structured approach for medication review for elderly patients who may be at particular risk of medication related harm either due to adverse events secondary to high risk medicines or polypharmacy or unintended prescribing omissions.

Box 2: Principles of the PINCER tool

- using information technology support
- using educational outreach with regular reinforcement of educational messages
- actively involving a multidisciplinary team, including GPs, nurses and support staff
- having dedicated pharmacist support
- agreeing an action plan with clear objectives
- providing regular feedback on progress
- providing clear, concise, evidence-based information.'

The development of the medicines optimisation guidance is an example of how the willingness to learn through trend analysis of voluntary reports to the national reporting and learning system (NRLS), and specific research can translate to national guidance.

The focus of medication safety initiatives in general, as well as within the NICE guidance is on reducing medicines related patients safety incidents: unintended or unexpected incidents that are
specifically related to medicines use, which could have or did lead to patient harm. Medicines related patient safety incidents include avoidable medicines related hospital admissions and readmissions, medication errors, near misses and potentially avoidable adverse events. In March 2014, a patient safety alert was issued by NHS England (10) promoting the reporting and learning of medication incidents. Whilst the focus of the alert was on large healthcare organisations, it includes a recommendation for smaller organisations including general practices to report medication error incidents to the NRLS and take action to improve reporting and medication safety locally.

**What does this mean for your practice?**

The NICE guidance enables and encourages individual practitioners to share incidents, concerns and near misses that may be causing patient harm. If you are the clinical lead within your practice, it is an opportunity to review the systems that are in place to identify and report concerns.

Use the seven steps (16, 17) to patient safety to help you identify what you need to do.

1. Assess the maturity of the safety culture in your practice. A number of tools are available for this (18) an example is the Manchester Patient Safety Framework (19) tool which has been developed to help NHS organisations and healthcare teams assess their progress in developing a safety culture.
2. Lead and support your practice team by talking about patient safety, including safety in training and team meetings.
3. Integrate risk management activity through regular review of patient records; tools such as the PINCER software or the STOPP/START structured reviews may help identify patients, but are only effective with a team approach involving pharmacists, nurses and support staff.
4. Use the NRLS online reporting tool [available at https://report.nrls.nhs.uk/GP_eForm] to report errors that occur in your own practice as well as those made by others including hospital prescribers or community pharmacists.
5. Involve and encourage patients in their own medicines management, and recognising adverse events.
6. Work with practice pharmacists, medication safety officers in local network multiprofessional groups and commissioners to learn and share safety lessons.
7. Review processes and the safety of your practice (20), and implement solutions to prevent harm.

Ultimately, safe practice begins with individuals: patients as well as health care practitioners. It is important to share good practices amongst colleagues in your organisation whilst acknowledging when things go wrong and reporting appropriately. These are the first steps towards achieving safe and optimal use of medicine.

**References:**