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Safety body highlights deadly impact of high-risk medication errors

Failure to identify high-risk medication errors in patients with complex needs can have a fatal outcome, a new report warns today.

The report, published by HSIB, sets out a case where a medication error with warfarin contributed to the death of a 79-year-old man. The patient had suffered a fall at home and had been admitted to hospital. An error on his chart whilst he was on the ward led to him receiving four or five doses of warfarin, which he did not normally take, before the error was spotted by a ward-based clinical pharmacist. The patient developed internal bleeding and deteriorated (due to several health reasons) and died 21 days after his first admission.

Research published this year suggests that medication errors may directly cause around 712 deaths per year and indirectly contribute to 1,708. The report highlights the growing ageing population and that pharmaceutical care of older people can be complex. They are often taking multiple medications and are at the greatest risk of harm due to medicine-related errors. In the case HSIB examined, the patient was on 12 different medications and supplements at the time of admission. By day nine of his hospital stay, this had increased to 16.

HSIB's national investigation focused on the role of ward-based clinical pharmacy services and how they work within the multidisciplinary teams (MDT's) that administer care to a patients. Ward-based pharmacists are crucial in enhancing the team's ability to spot errors, especially in high-risk situations. However, the investigation findings emphasised that there is variance in the way the services are staffed and organised. They also found that other staff within the MDT's could better understand the role pharmacists have in between admission and discharge of the patient. HSIB also found that more work needs to be done to assess how resilient pharmacy services are to operational pressures and the additional challenges associated with caring for older people.

As a result of the national investigation, HSIB has made three recommendations to facilitate better understanding of the role of the ward-based pharmacist, and to encourage best practice and resilience when identifying and developing models of pharmacy provision.

Dr Stephen Drage, HSIB's Director of Investigations and ICU consultant said*: "Medication errors are one of the most frequent failures of care and it can have a devastating outcome, as sadly shown by the case that launched our investigation.*

"Through our investigation it emerged that collaboration within MDT's is key. Better understanding the role of the ward-based pharmacist and the expertise they bring can help reduce medication errors, especially in high-risk situations.

"The safety recommendations set out in the report focus on ensuring a national approach to modelling pharmacy services, giving trusts the best chance to increase their healthcare resilience. This is now more important than ever as the NHS tackles Covid-19 and the extra pressure the pandemic is putting on services. Medication errors are more likely to occur when patients are older, or have complex needs, but they can impact any patient. Increasing the efficiency and effectiveness of pharmacy services can help to reduce the risk of error and ensure consistency of care for all."

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Notes to editors

Report attached in email from media@hsib.org.uk

Safety recommendations

- It is recommended that NHS England and NHS Improvement carry out work to understand and further define the work of hospital clinical pharmacy teams, including the period between initial medicine reconciliation and discharge, in consultation with relevant stakeholders.
- It is recommended that the Royal Pharmaceutical Society, supported by NHS England and NHS Improvement, should provide guidance on models of hospital clinical pharmacy provision. The guidance should provide information on the models' ability to enhance safety and healthcare resilience and include consideration of the appropriate skill mix and experience within the clinical pharmacy team.
- It is recommended that the NHS Specialist Pharmacy Service should update its resource on the prioritisation of hospital clinical pharmacy services to facilitate the dissemination of developments in good practice and policy with respect to pharmacy prioritisation and the issues highlighted in this report.

Safety observations

- Effective clinical pharmacy services have been evidenced to improve a range of measures linked to efficiency and patient safety in acute hospitals.

- Further integration of clinical pharmacy services within the MDT and within strategic decision making may improve a shared understanding of which medicines and situations place patients at greater risk of serious medication errors occurring.
- Clinical pharmacy services should consider using validated tools to assist in prioritising pharmacy care and identifying high-risk medicines and high-risk situations for medication error. Where electronic medical record systems are used, such tools could be integrated int these systems to aid prioritisation.
- Caring for older patients in hospital often presents a high-risk situation for medication errors occurring. Further efforts should be made to learn from technological developments and the organisation of pharmacy services in other high-risk areas of care that may improve system resilience in older persons care.

About HSIB

The formation of HSIB is a world-first and represents a landmark moment for the NHS in England. HSIB's purpose is to help improve safety in the healthcare system by developing recommendations and sharing lessons from investigations. HSIB will improve patient safety through effective and independent investigations that do not apportion blame or liability. More details can be found at www.hsib.org.uk