MEDICATION PRESCRIBING SAFETY INCIDENTS IN PRIMARY CARE

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Background and aims

Using the WHO International Classification for Patient Safety terminology,[1] we have defined medication prescribing safety incidents as an event or circumstance that could have resulted, or did result, in unnecessary harm to a patient - as a result of medication prescribing decision and prescription writing process. Prescribing incidents can lead to significant harm to patients with some of these being preventable. This study aimed to describe medication prescribing safety incidents occurring in primary care reported to the National Reporting and Learning System (NRLS, a central repository of patient safety incident reports in England and Wales) with outcome severity of moderate harm, severe harm or death and identify priority areas of intervention to improve patient safety.

Methods

Medication prescribing incidents reported to the NRLS between 2003 and 2013 from primary care which described a harm severity of moderate, severe or death by the original reporter were extracted and reviewed. Free-text descriptions were coded using an existing safety classification system[2] to characterise incident type, contributory factors, outcomes and severity. Exploratory descriptive analysis was undertaken to identify recurring themes and quantify data which was subsequently used to identify key areas for improvement.

Results

Out of 2556 incident reports, 360 incidents were identified as medication prescribing incidents. Following review for this study, 105 incidents were confirmed to be prescribing incidents that resulted in moderate, severe harm or death (n=105). 83 incidents had moderate outcome (79%), 12 severe (11%) and 10 deaths (10%). The most frequent prescribing incident types identified were wrong dose (n=23/105 22%), wrong strength (n=13/105 12%), medication prescribed which is deemed unsafe to the patient (n=11/105 10%) and prescription of a drug that the patient was known to be allergic to (n=10/105 10%). Reported contributory factors included inadequate knowledge or skills (n=21), failure to follow protocol (n=17), sub-optimal transfer of patient information from secondary to primary care (n=10) and mistakes or lapses by staff (n=37). Drugs that were mostly associated with prescribing incidents included opioid analgesics (n=32), warfarin (n=19), antibiotics (n=15) and non-steroidal anti-inflammatory drugs, NSAIDs (n=12).

Conclusion

Significant harm from primary care medication prescribing incidents in the NRLS were mostly caused by wrong dose or strength of medication being prescribed. This is often due to lack of knowledge or inadequate skill and failure to follow prescribing protocols. Our results indicate the need for further staff training when prescribing opioid analgesics, warfarin, antibiotics and NSAIDs. It was also clear that poor sharing of information from secondary to primary care contributed to some of these incidents and further research to identify the reasons is needed.

Reference

1. Runciman W, Hibbert P, Thomson R, et al. Towards an international classification for patient safety: key concepts and terms. *Int J Qual Health Care*, 2009. 21:18–26.
2. Carson-Stevens A, Hibbert P, Avery A et al. A cross-sectional mixed methods study protocol to generate learning from patient safety incidents reported from general practice. *BMJ Open*, 2015. **5**(12).