AN ANALYSIS OF INTERNAL MEDICATION ERRORS USING INCIDENT REPORTS AT A TEACHING HOSPITAL IN JAPAN: A RETROSPECTIVE STUDY

Tsuda Y, Hirose M, Egami K, Ohama K, Honda J, Shima H

OBJECTIVES: Few studies regarding clinical epidemiology of internal medication errors are published in Japan. This study aims to explore the frequency and type of internal medication errors using incident reporting. METHODS: A total of 1706 incident reports related with internal medication errors were collected and examined at a teaching hospital with 3345 beds in Japan. Frequency, type, and injury level of internal medication error, and health care professionals involved were investigated in the internal medication use process (e.g., ordering, dispensing, transcription, and administration). RESULTS: We detected a total 1706 intravenous medication errors between January, 2006 and March, 2010. In each stage the frequency of medication error was ordering: 2 (0.1 %), transcription: 604 (35.4 %), and administration 1,061 (62.3 %). And, numbers of reports by injury level were 732 (42.9 %) reports with level 1, 328 (77.8 %) reports with level 2, 26 (1.5 %) reports with level 3a, 3 (0.2 %) reports with level 3b, and one (0.06 %) report with level 5. The most common type of health care professionals were nursing staff (1,072: 62.8 %), pharmacist (590: 34.6 %), care worker (24: 1.4 %) and physician (13: 0.9 %), in decreasing order. Pharmacists were much more involved in internal medication errors than in intravenous medication errors in our study. CONCLUSIONS: Different hospitals in Japan might lead to these results, and we believe deeper analyses can be conducted along this theme. Furthermore, it would be very important not only for junior residents and new nursing staff, but for newly-hired pharmacists to be taught with emphasis that the drugs indicated above were involved through residency and education programs. The higher tendency to be involved with internal medication errors will be discussed with specificity during our presentation.

AN ANALYSIS OF INTRAVENOUS MEDICATION ERRORS USING INCIDENT REPORTS AT A TEACHING HOSPITAL IN JAPAN

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OBJECTIVES: Few studies regarding clinical epidemiology of medication errors are published in Japan. This study aims to explore the frequency and type of intravenous medication errors, and drugs involved using incident reporting. METHODS: 1,855 intravenous medication errors were collected and examined at a teaching hospital with 1,354 beds in Japan. Frequency, type of medication error, and type of drugs are investigated in the medication use process, prescription/ordering, dispensing, transcription, and administration. RESULTS: We detected a total 1,885 intravenous medication errors between January, 2006 and March, 2010. In each stage the frequency of intravenous medication errors were ordering/prescription: 28 (1.5 %), transcription: 3 (0.2 %), dispensing: 155 (8.2 %), and administration 1,699 (90.1 %). The most common type of error throughout the medication use process were omission of drug, wrong drug, wrong dose and wrong time. And, the most common type of error was transcription: 3 (0.2 %), dispensing: 604 (35.4 %), and administration 1,061 (62.3 %). And, numbers of reports by injury level were 732 (42.9 %) reports with level 1, 328 (77.8 %) reports with level 2, 26 (1.5 %) reports with level 3a, 3 (0.2 %) reports with level 3b, and one (0.06 %) report with level 5. The most common type of health care professionals were nursing staff (1,072: 62.8 %), pharmacist (590: 34.6 %), care worker (24: 1.4 %) and physician (13: 0.9 %), in decreasing order. Pharmacists were much more involved in internal medication errors than in intravenous medication errors in our study. CONCLUSIONS: Different hospitals in Japan might lead to these results, and we believe deeper analyses can be conducted along this theme. Furthermore, it would be very important not only for junior residents and new nursing staff, but for newly-hired pharmacists to be taught with emphasis that the drugs indicated above were involved through residency and education programs. A higher tendency to be involved with errors will be discussed with specificity during our presentation.