Strengthening Med Safety in Long-Term Care

ismp CANADA

Med Safety Signal

Risks in medication safety reported by LTC Homes in Ontario

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Missed Methotrexate

Reported Incident (details are modified to ensure confidentiality of the home and reporter)

A resident takes methotrexate 20 mg (8 × 2.5 mg tablets) once weekly for rheumatoid arthritis. The methotrexate is received from the pharmacy in packaging that does not fit in the medication cart drawers where residents' medication strips are stored. Consequently, the methotrexate is stored in the bottom drawer of the medication cart. When the resident began to have increased pain, it was discovered that the methotrexate dose had been missed on three separate occasions. In the short term, the home decided to have the night nurse put the methotrexate blister pack multi-dose card on top of the medication cart on Tuesday night so the nurse on the day shift on Wednesday would see it and administer the dose.

Disclaimer: ISMP Canada staff determined the following key contributing factors and considerations for improvement. It is the responsibility of medication safety leaders in long-term care to determine what, if any, actions for improvement are needed in their medication management processes.

Key Contributing Factors:

- Methotrexate is a cytotoxic medication and therefore cannot be packaged using the regular strip-packaging technology because of cross-contamination concerns.
- The methotrexate was packaged in a way that prevented storage with the resident's medication strip.
- In the eMAR, the nurse signed off the medication as having been administered without actually having administered the drug.

Considerations for Improvement:

- Package methotrexate in containers or bags that fit into standard medication drawers (e.g., small blister package).
- Use colours or symbols in MARs and eMARs to highlight methotrexate as a once-weekly medication order.
- Consider adding an alert on the pharmacy software drug file for methotrexate so that it appears on the medication administration record (MAR) indicating "NON-STRIP Medication" such that the medication is clearly labelled as not being in the regular weekly strip.
- Add an empty pouch or sticker to the weekly strip at the administration time for methotrexate to alert the nurse of the need to retrieve it from another area of the cart.
- Implement/reinforce the policy preventing medication sign-off until after medication administration.

Resources:

Methotrexate incidents in the community: A multi-incident analysis by ISMP Canada. Toronto (ON): Ontario College of Pharmacists. Pharmacy Connection. 2015 Summer: 32-36. Available from: https://www.ismp-canada.org/download/PharmacyConnection/PC2015-MethotrexateMedicationIncidentsCommunity.pdf

Medication Safety Self-Assessment for Long-Term Care, Canadian Version III. Toronto (ON): Institute for Safe Medication Practices Canada; 2021 [cited 2023 Jul 12]. Registration required to access content.

Severe harm and deaths associated with incidents involving low-dose methotrexate. ISMP Can Saf Bull. 2015 [cited 2023 Jul 12];15(9):1-5. Available from: https://ismpcanada.ca/wp-content/uploads/ISMPCSB2015-09_Methotrexate.pdf.

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