Medication Errors in the Community

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Conflicts of Interest

- None to declare
Community Care

• Health care provision in the community is increasing
  • Ontario Homecare Association

• Health care provision by non regulated persons is playing a greater role in care
  • Canadian Caregiver Coalition
Care Errors

- Adverse events in home care are beginning to be better characterized
  - Sears N et al. *Int J Qual Health Care* 2013
  - Blais R et al. *BMJ Qual Saf* 2013

- The use of non-regulated caregivers is a contributing factor to the adverse events
Preventability

• There is a high index of preventability in these adverse events
  
  • Sears N et al. *Int J Qual Health Care* 2013
Dedicated to reducing preventable harm from medications
The Coroner’s and Medical Examiner’s Project
Study Objectives

• Determine the characteristics of fatal medication errors that happen in the non–regulated community

• Identify the contributing factors to fatal medication errors that happen in the community
Study

• Health Canada Special Project
• University of Toronto Research Ethics Board Approval
Methods

• Coroner and Medical Examiner Files from 2007-2012 from 4 provinces

• Inclusion criteria:
  • death was outside a regulated facility
  • related to a medication incident in a therapeutic context

• Exclusion criteria
  • medication administration was performed by a regulated health care professional
Methods

• Simple Quantitative Analysis
• Qualitative Analysis
  – Multi-incident analysis technique outlined in the Canadian Incident Analysis Framework
Results

• 122 Coroner/Medical Examiner death files in total of which 45 met inclusion criteria
Results

• Drugs
  – Opioids (20 cases)
  – Psychotherapeutic agents (17 cases)
  – Insulins (5 cases)
  – Non prescription drugs (5 cases)
  – Others (9 cases)

• Locations
  – Private residence (36 cases)
  – Other (9 cases)
Results

- Misperceptions associated with taking medications
- Signs and symptoms of toxicity
- Specific medications, including high-alert medications

Subthemes:
- Intentional therapeutic overdose
- Therapeutic sharing
- Unsafe storage
- Unconsciousness mistaken for sleep
- Sudden change in behaviour
- Reluctance or hesitancy to seek help
- Opioids
- Psychotherapeutic agents
- Insulins
- Non-prescription drugs
- Cardiovascular drugs
- Anticoagulants
- Anticonvulsants
Results

• Qualitative Themes
  – Misperceptions associated with taking medications
    • Intentional Therapeutic Overdose
    • Therapeutic Sharing
    • Unsafe storage
Results

• Qualitative Themes
  – Signs and symptoms of toxicity
    • Coma mistaken for sleep
    • Changes in behaviour
    • Reluctance or hesitancy to seek help
Results

• Qualitative Themes
  – Risks of specific medications
    • For example:
      – Opioids – respiratory suppression
      – Non-prescription drugs – liver toxicity
      – Anticoagulants - bleeding
Conclusions

• Medication errors are a notable cause of healthcare related death in the community and an important Public Health concern.

• We have identified significant contributing factors to these deaths.
Implications for Public Health

• Address the deficiencies in knowledge with respect to both general and specific risks of medications

• Develop and implement comprehensive injury prevention strategies
  – identification and management of toxicity and overdose
Implications for Public Health

• Continue the surveillance of patient safety outside of regulated facilities
Thank you