Objectives

• Participants will understand the definition of Adverse Events and be able to apply the definitions to multiple scenarios in their own center.
• Participants will verbalize understanding of the impact of Adverse Events on the lives of residents
• Participants will be able to verbalize examples of potential Adverse Events
• Participants will be able to verbalize understanding of how to use the QAPI system to deal with Adverse Events
Definitions

• Adverse Event: An untoward, undesirable, and usually unanticipated event that causes death, serious injury, harm, or the risk thereof.
• Adverse Drug Event: An injury resulting from drug-related medical interventions.
• Adverse Drug Reaction: Harm directly caused by a drug at normal doses.
• Anticholinergic Effects: Physical symptoms resulting from drugs that counter the action of acetylcholine including increased blood pressure, respiratory distress, clumsiness/unsteadiness, bloating/constipation/ileus, nausea/vomiting, dry mouth, delirium, drowsiness/lethargy/fatigue, urinary retention, hallucinations, memory problems, and blurred vision.
• Prescribing Cascade: Adverse reaction to one drug that goes unrecognized or is misinterpreted resulting in the prescriber inappropriately prescribing a subsequent drug to treat the signs/symptoms of the adverse reaction.
• Polypharmacy: Multiple definitions exist, but most include reference to drugs without indication and the number of medications used (e.g., more than 10).
• Risk Factor: Issue or condition that increases the potential for an adverse event to occur. Risk factors include resident level issues such as medications prescribed, age, and concurrent conditions as well as system level issues such as lack of staff knowledge related to high risk medications and unclear protocols to address lab results.

Adverse Events in Nursing Homes


• One in three residents were harmed by an adverse event within first 35 days of stay
• 59% of events were preventable
• 37% medication related (e.g., med induced change in mental status, excessive bleeding)
• 37% resident care related (e.g., falls, exacerbation of pre-existing condition, electrolyte imbalance, pressure ulcer)
• 26% infection related (e.g., pneumonia, surgical site infection, UTI, c-diff)
• Over half of the residents who experienced harm returned to a hospital for treatment
Potentially Preventable Adverse Events Related to Resident Care

- Falls, abrasions, skin tears or other trauma related to care
- Electrolyte imbalance including dehydration and acute kidney injury/insufficiency associated with inadequate fluid maintenance
- Thromboembolic events related to inadequate resident monitoring & provision of care
- Respiratory distress related to inadequate monitoring & provision of tracheostomy/ventilator care
- Exacerbations of preexisting conditions related to inadequate or omitted care
- Feeding tube complications (aspiration, leakage, displacement) related to inadequate monitoring & provision of care
- In-house/worsened stage pressure ulcers & unstageable/suspected deep tissue injuries
- Elopement

Potentially Preventable Adverse Events Related to Medications

- Identified medication errors including omissions or documentation omissions
- Change in mental status/delirium related to use of opiates & psychotropic meds
- Hypoglycemia related to use of antidiabetic meds
- Ketoacidosis related to use of antidiabetic meds
- Bleeding related to use of antithrombotic meds
- Thromboembolism related to use of antithrombotic med
- Prolonged constipation/ileus/impaction related to use of opiates
- Electrolyte imbalance including dehydration & acute kidney injury related to use of diuretic med
- Drug toxicities including: acetaminophen, digoxin, levothyroxine, ACE inhibitors, phenytoin, lithium, valproic acid, antibiotics
- Altered cardiac output related to use of cardiac/blood pressure med
Potentially Preventable Adverse Events Related to Infections

- **Respiratory infections**
  - Pneumonia
  - Influenza
- **Skin & wound infections**
  - Surgical site infections
  - Soft tissue and non-surgical wound infections
- **Urinary tract infections**
  - Catheter associated UTIs
  - Other UTIs
- **Infectious diarrhea**
  - *Clostridium difficile*
  - *Norovirus*

Defining Medication Errors

- “A medication error is any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional, patient, or consumer. Such events may be related to:
  - Professional practice
  - Health care products
  - Procedures & systems
  - Product labeling, packaging, & nomenclature
  - Dispensing
  - Distribution
  - Administration
  - Education
  - Monitoring
Classifying Medication Errors

- Circumstances exist for potential errors to occur
- An error occurred but did not reach the resident
- Error reached the resident but did not cause harm
- Resident monitoring required to determine lack of harm
- Error caused temporary harm and some investigation
- Temporary harm with initial or prolonged hospitalization
- Error resulted in permanent resident harm
- Error required interventions to sustain resident’s life
- Error contributed to resident’s death

Examples of Causal Factors for Medication Errors

- Verbal orders
- Poor communication within team
- Poor handwriting
- Improper drug selection
- Missing medication
- Incorrect scheduling
- Polypharmacy
- Drug interactions
- Availability of floor stock (no second check)
- Look alike/sound alike drugs
- Hectic work environment

• Identify preventable adverse drug events that have occurred or may occur
• Determine whether facility identify residents’ risk factors for adverse drug events & implement individualized interventions to eliminate or mitigate those risk factors
• Determine if facility has implemented effective systems to prevent adverse drug events as well as recognize & respond to adverse drug events that do occur in order to minimize harm for individual & prevent recurrence of event

Medication Adverse Event Trigger Tool

<table>
<thead>
<tr>
<th>Adverse Drug Event (ADE)</th>
<th>Risk Factors</th>
<th>Triggers: Signs and Symptoms</th>
<th>Triggers: Clinical Interventions</th>
<th>Surveyor Probes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bleeding related to antithrombotic medication use.</td>
<td>• Anticoagulant, antiplatelet, or thrombolytic medication use • Concurrent use of more than one antithrombotic medication (e.g., use of aspirin while on anticoagulants)</td>
<td>• Elevated PT/INR, PTT • Low platelet count • Bruising • Nosebleeds • Bleeding gums • Prolonged bleeding from wound, IV, or surgical sites</td>
<td>• Stat order for PT/INR, PTT, platelet count, or CBC • Abrupt stop orders for medication • Administration of Vitamin K • Transfer to hospital</td>
<td>• Is there evidence the facility routinely monitors lab results of all residents on anticoagulant/antiplatelet therapy? • Is there evidence of a system to alert prescribers?</td>
</tr>
</tbody>
</table>
QAPI: Focus on Adverse Events

• Definition: An untoward, undesirable, unanticipated event that causes death or serious injury, OR THE RISK THEREOF (CMS)
• Built on written and implemented policies & procedures that include systems for data collection & monitoring for high risk, high volume & problem-prone issues, including adverse events
• Systematically identify, report as appropriate, track, & investigate data & information relating to adverse events
• Aim of developing & implementing plans to prevent adverse events & ensure resident safety

Apply Root Cause Analysis to Adverse Events

• Determine what happened
• Identify factors that contributed to the event
• Develop an action plan to reduce the likelihood of a similar event
Components of Effective RCA

- Gather & document initial information
- Fill in the gaps
- Analyze
- Develop an action plan
- Implement action plan and evaluate results
- Consider using Adverse Event Investigation Guide Documentation Checklist

“Just Culture”

- We are all fallible human beings, susceptible to human error & behavior drift
  - Human error?
  - At-risk behavior?
  - Reckless behavior?
Human Error

• Inadvertently doing other than what should have been done
  • A slip
  • A lapse
  • A mistake
• Manage through
  • Choices
  • Procedures
  • Training
  • Design
  • Environment

At-Risk Behavior

• A behavioral choice that increases risk where risk is not recognized or is mistakenly believed to be justified
• Manage through:
  • Removing incentives for at-risk behaviors
  • Creating incentives for healthy behaviors
  • Increasing situational awareness
Reckless Behavior

• A behavioral choice to consciously disregard a substantial & unjustifiable risk
• Manage through:
  • Remedial action
  • Punitive action

Reducing Adverse Events

• A safety culture is pivotal to improving safety (encourage voluntary reporting)
• Management & leadership must devote adequate resources & attention to safety
• Provide sufficient resources to Safety Team & QAPI teams
• Authorize resources to invest in technologies & electronic records
• Foster a commitment to resident rights (YOU are the resident’s advocate)
Adverse Event Resources


Thank you!

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