CHSP and Cal HEN Hypoglycemic Agent Drug Event Prevention Gap Analysis: Survey Findings

September 11, 2013
Welcome

Agenda

• Thank you for participating in the Hypoglycemic Adverse Drug Event Prevention Gap Analysis
• Review survey responses
• Discussion and Questions
  • Opportunities
• Participate in third and final gap analysis survey: anti-coagulation high risk medications
## Survey Sections

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<td>VI. Survey Evaluation</td>
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</table>
The facility has established blood glucose targets for:

- 1a) Critically ill patients: 89%
- 1b) Non-critically ill patients: 76.5%
- 1c) Pregnant patients with GDM or pre-existing diabetes: 71%
- 1d) Neonate/pediatric patients: 82%

Number who responded to question= 18
Number who skipped the question= 0
The facility has established blood glucose monitoring guidelines, (including point of care (POC) testing for more rapid rest results), for:

- 100% of respondents indicated that patients with diabetes (without diabetes) have guidelines.
- 78% indicated that patients with hospital-acquired hyperglycemia (without diabetes) have guidelines.
- 94% indicated that pregnant women who are eating and have gestational diabetes mellitus have guidelines.
- 75% indicated that neonate/pediatric patients have guidelines.

Number who responded to question = 18
Number who skipped the question = 0
The facility has processes in place to eliminate errors in prescribing, dispensing, and administration which includes:

- 2b) Floor stocks of insulins is minimized or eliminated: 39% No, 83% Yes
- 2d) If override is allowed for emergent situation, an independent double check is instituted prior to dispensing non...: 57% No, 82% Yes
- 2e) Insulin is not available from automated dispensing cabinet (ADC) ...: 82% No, 76.5% Yes
- 2f) The number of standard concentrations used for insulin infusions ...: 94% No, 82% Yes
- 2g) An independent double check is instituted prior to dispensing non...: 76.5% No, 82% Yes

Number who responded to question= 18
Number who skipped the question= 0
3a) The facility has a process in place to streamline formulary to single “brand” source for each insulin type with approved substitutions.

Number who responded to question= 16
Number who skipped the question= 2

94%
Number who responded to question = 16
Number who skipped the question = 2
Standard practices are established for subcutaneous insulin dosing for the following situations:

- 4f) Correction scale(s)
  - No: 62.5%
  - Yes: 37.5%
  - Total: 100%

- 4h) Pre-operative or pre-procedural protocol
  - No: 25%
  - Yes: 75%
  - Total: 100%

4a) Non-standard insulin concentrations (e.g., U-500 insulin)
4g) Basal prandial dosing (carbohydrate/non-carbohydrate)
4i) Converting from oral agents to insulin

California Hospital Engagement Network
Working to reduce patient harm by 40 percent and readmissions by 20 percent by the end of 2013.
Number who responded to question = 16
Number who skipped the question = 2
The facility has a policy in place for patients with self-managed subcutaneous insulin pumps which specifies:

- Number of Respondents: 16
- Number who responded to question: 16
- Number who skipped the question: 2
- 62.5%
Standard practices are established for oral and injectable non-insulin antihyperglycemic agents, which include:

- Sulfonlurea agents are avoided with NPO patients and patients with... (4a) 60% No, 44% Yes
- Use of oral and injectable noninsulin antihyperglycemic agents (4p) 62.5% No, 37.5% Yes
- Thiazolidinedione use is avoided in patients with CHF. (4r) 80% Yes, 20% No

Number who responded to question = 16
Number who skipped the question = 2
4t) There is a process in place to ensure that protocols/policies order sets are implemented and being used consistently.

Number who responded to question= 16
Number who skipped the question= 2
The facility has a process in place for follow up after initial hypoglycemic reaction occurs which includes:

- 5a) The adjustment of insulin dose: 62.5%
- 5b) The implementation of standard BG monitoring after treatment of hypoglycemia: 75%
- 5c) A plan for ongoing monitoring and dose adjusting to prevent hypoglycemia: 62.5%
6a) The facility’s insulin administration record, glucose monitoring results, and carbohydrate intake are effectively displayed to allow caregivers to accurately and efficiently assess data.

Number who responded to question= 15
Number who skipped the question= 3
The facility implements real-time rules/alerts to flag low blood glucose triggers and changes in patient condition predisposing patient to hypoglycemia, which include:

- 26.7% for 6c) Addition or discontinuation of medication(s) that affect blood glucose
- 26.7% for 6b) Change in nutrition and/or fluid status - admission, acute illness...
- 20% for 6d) Disease state - acute renal failure (ARF), acute hepatic failure,....
- 40% for 6e) Transitions in care/handoffs.

Number who responded to question = 15
Number who skipped the question = 3
7a) The facility has a process in place to coordinate blood glucose checks, meals and insulin administration times.

Number who responded to question= 15
Number who skipped the question= 3
The facility has a process in place to monitor for mismatch between nutritional intake in patients with fixed prandial dosing:

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<td>Upon admission.</td>
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<tr>
<td>For patients with inconsistent nutritional intake or failure to e...</td>
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<tr>
<td>At transitions in care.</td>
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- No: 27%
- Yes: 43%

Number who responded to question= 15
Number who skipped the question= 3
The facility has a process in place that requires new insulin orders and BG monitoring for patients on insulin with:

- 43% for 7d. Change in nutrition status (e.g., new NPO status, transition from...)
- 53% for 7e. Discontinuation of TPN/dextrose containing IV fluid or EN.

Number who responded to question= 15
Number who skipped the question= 3
The facility has a process in place for management of insulin used with other medications that may affect blood glucose control, which includes:

- 43% of respondents answered "Yes" to assessing the appropriateness of continuation of injectable non-insulin medications.
- 20% of respondents answered "Yes" to ensuring that appropriate warnings appear in information systems.

Number who responded to question= 15
Number who skipped the question= 3
The facility has processes in place for management of insulin use in the following disease states:

- 20% for Liver dysfunction: use of an algorithm to determine need for reduction
- 20% for Renal dysfunction: use of an algorithm to determine need for reduction
- 33.3% for Malnutrition/low body weight: use of an algorithm to determine need for reduction
- 40% for Type 1 Diabetes: should have dextrose added to IV fluids if no cause
- 36% for Hyperkalemia: Insulin should be used to treat hyperkalemia only if...

Number of Respondents: 15
Number who skipped the question: 3
A standard hand-off/transition communication process is in place for all patients receiving insulin which includes the following information, at minimum:

10a) Communication of last blood glucose check.  
73%  
10b) Date and time of last insulin dose given.  
87%

Number who responded to question = 15
Number who skipped the question = 3
11a) The facility has a process in place to encourage co-management of insulin with patients who are capable and willing, (e.g., encourage patients to question doses and timing of insulin administration.)

Number who responded to question= 15
Number who skipped the question= 3
The facility has insulin management practices in place, which include:

- 11a) Matching insulin prandial dosing to the amount of carbohydrate consumed
- 11b) Checking blood glucose within 30 minutes before meal
- 11c) Administering rapid-acting prandial insulin within 30 minutes post-meal
- 11d) Avoiding dose stacking (e.g., Corrective insulin should not be given...)

Number who responded to question= 15
Number who skipped the question= 3
Number who responded to question= 15
Number who skipped the question= 3
The facility has a process in place for management of hyperglycemic patients using mixed insulin which includes:

- 12d) Dosing occurs only before breakfast and before dinner; not at bed.
- 12e) Patients are monitored for nocturnal hypoglycemia.
- 12f) Change to basal/prandial if patient becomes NPO or exhibits inco...

Number who responded to question = 15
Number who skipped the question = 3

No. of Respondents
The facility has an established standard order set or protocol, approved by medical staff committee, in place for management of hypoglycemic patients which includes:

- 100% of respondents agree with 13a) A standard method for management of hypoglycemia, including frg...
- 73% agree with 13b) Allows nurses to administer hypoglycemia "rescue" agents without...
- 100% agree with 13c) Hypoglycemia "rescue" agents (dextrose, glucagon) are readily ac...

Number who responded to question= 15
Number who skipped the question= 3
The facility has a process in place which evaluates staff competencies related to hypoglycemic agent use including:

- **14a)** Hypoglycemia is always considered when a patient receiving insulin:
  - No: 80%
  - Yes: 20%

- **14b)** Hypoglycemia should not be ruled out as a cause of confusion or:
  - No: 60%
  - Yes: 40%

Number who responded to question = 15
Number who skipped the question = 3
Number who responded to question = 15
Number who skipped the question = 3
The facility has a process in place to educate patients and families using teach-back method on diabetes “survival skills” to ensure safe therapy including:

- 15a) Nutritional management: 86%
- 15b) Self-blood glucose monitoring: 86%
- 15c) Medication management: 86%
- 15d) Hyperglycemia and hypoglycemia recognition: 86%
- 15e) Treatment and prevention: 86%
- 15f) Exercise: 79%
- 15g) Sick day guidelines: 71%
- 15h) Resources: 79%
- 15i) Post-discharge follow-up appointment: 79%

Number of Respondents:
- Number who responded to question: 15
- Number who skipped the question: 3
Number who responded to question= 12
Number who skipped the question=  6
Discussion and Questions
# Next Steps

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<td>September 27(^{th})</td>
<td>October 2(^{nd}) 12:15 PM</td>
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