The purpose of this pilot study is to increase knowledge of nursing facility direct care staff with the goal of decreasing hospital sepsis admissions and readmissions.

**Method**

This project included an hour long education session to teach the direct care staff at area nursing homes how to identify sepsis and what to do once identified, incorporating the STOP and WATCH and sepsis algorithm tools. It included a pre-test, the education session and a post-test to measure staff knowledge change.

**Abstract**

Nursing facilities were the target of an educational intervention to decrease hospital admissions and readmissions for sepsis.

**Limitations**

- Study limited to one local area hospital and 6 skilled nursing facilities
- Small sample size

**Problem**

No clinical practice guidelines for treatment of sepsis out of the hospital or continued care once a patient leaves the hospital.

**Sepsis algorithm for adults**

- Suspected infection
- Fever/chills
- Cough/SOB
- Cellulitis/wound drainage
- Weakness
- WBC >12 or <4
- Resp. Rate >20/SpO2 <90%
- SBP <90 despite IV fluids
- Urine output <400ml in 24 hours
- Temperature ≥100.4°F
- Pulse ≥100
- Progression of symptoms despite treatment
- SBP ≤90 on <200 ml/min

**Positive SIRS criteria**

- Fever/chills
- Cough/SOB
- Cellulitis/wound drainage
- Weakness
- WBC >12 or <4
- Resp. Rate >20/SpO2 <90%
- SBP <90 despite IV fluids
- Urine output <400ml in 24 hours
- Temperature ≥100.4°F
- Pulse ≥100
- Progression of symptoms despite treatment
- SBP ≤90 on <200 ml/min

**Conclusion**

- Education intervention demonstrated a statistically and meaningful change in knowledge.
- The trend of lower admission and death rates support further development of testing of the educational intervention.
- Additional research should be conducted on a larger scale with additional nursing facilities and hospitals.

**Results**

- Mean pre-test score was 78.7% and the mean post test score was 95.6%
- Two sample t-test showed this to be a statistically significant change in knowledge after the education was completed and was determined to be a meaningful change in knowledge.

**Educational Intervention**

- **Pre**
  - Admission (n=15): 1 (16.7)
  - Readmission (n=10): 10 (100)
  - Death (n=15): 0 (0)
- **Post**
  - Admission (n=8): 2 (25)
  - Readmission (n=5): 5 (83.3)
  - Death (n=1): 1 (16.7)

**Table 2: Comparison of Pre and Post Outcomes Characteristics**

<table>
<thead>
<tr>
<th></th>
<th>Pre n=15</th>
<th>Post n=8</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Death, n (%)</td>
<td>10 (66.7)</td>
<td>6 (75)</td>
<td>1.000</td>
</tr>
<tr>
<td>Readmit, n (%)</td>
<td>5 (33.3)</td>
<td>2 (25)</td>
<td></td>
</tr>
</tbody>
</table>

**Table 1: Comparison of Pre and Post Demographics**

<table>
<thead>
<tr>
<th></th>
<th>Pre n=15</th>
<th>Post n=8</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, median (IQR)</td>
<td>88 (84, 90)</td>
<td>90 (86, 92)</td>
<td>0.315</td>
</tr>
<tr>
<td>Sex, n (%)</td>
<td>M 5 (33.3)</td>
<td>M 3 (3, 4)</td>
<td>1.000</td>
</tr>
<tr>
<td>LOS, median (IQR)</td>
<td>4 (3, 6)</td>
<td>3 (3, 4)</td>
<td>0.247</td>
</tr>
</tbody>
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