Early Recognition of Sepsis in the Outpatient Cancer Center Infusion Clinic

**BACKGROUND**
- Sepsis is a life threatening inflammatory response to infection (Gauer, 2013)
- Mortality rates as high as 25% (Dellinger, 2012)
- Highest mortality, most expensive to treat, early recognition of sepsis saves lives (Shelton, 2016)
- Outpatient sepsis screens rare (Handzel, 2016)

**LOCAL CONTEXT**
- Pre-data 8/1/16 to 11/15/16
- 33 Oncology patients presented to Emergency Care Center (ECC)
- 25 sepsis, 7 septic shock patients
- Standard work flow developed
- QSOFA screen all cancer pts under treatment
  - If positive:
    - Call ambulance and notify MD
    - Contact ECC Charge Nurse to ensure continuity of care
- No formalized sepsis screening before 2017
- CCPT transferred 11 patients to ECC 10/17 - 2/18
- QSOFA chart audit - 85% correct

**PURPOSE**
- Track effectiveness of RN education & QSOFA on early recognition of sepsis in Infusion Clinic

**Clinical Practice Questions**:
- Did RN education effect charted sepsis screens?
- Number QSOFA + patients transferred to ECC?
- Time of positive screen to transport to ECC?
- QSOFA + how many SIRS, Sepsis, Septic Shock?
- Number of patients educated about sepsis?

**METHODS**
- Design: EBP quality improvement project
- Setting: Center for Cancer Prevention and Research (CCPT)
- Sample: 21 Oncology patients
- Procedure:
  - Retrospective chart review: 267 ECC sepsis patients 9/18 - 12/18 to ID oncology patients
  - Data collected - ECC MD note, CCPT charting
  - Analyzed for # patients, sepsis level, arrived from CCPT or home
  - Audit compliance with standard work

**OUTCOMES & RESULTS**
- RN education done in Infusion Clinic on Sepsis
- Compliance audit in Infusion Clinic
  - 57% of patients - educated about sepsis in CCPT
  - QSOFA chart audit - 91% correct
- Results of audit 9/18 – 12/18 (N=21)
  - 100% of patients admitted to ECC from home
  - 100% patients seen in CCPT within days prior to ECC visit had negative sepsis screens
  - 15 sepsis, 6 septic shock

**LIMITATIONS**
- Small sample size
- 2016 pre-data not complete 4 months
- Post-data limited to 4 months
- Two clinical practice questions not answered because no patients transferred from CCPT to ECC
- 43% of sepsis patients not treated at CCPT

**FURTHER RESEARCH & IMPLICATIONS FOR PRACTICE**
- Continue QI sepsis project
- Further research is needed on sepsis screening in outpatient oncology settings
- Expand education on sepsis to MD offices
- Ensure QSOFA screening tool is on new EPIC charting system for outpatients

**DISCUSSION/CONCLUSIONS**
- 9/18-12/18 Data conclusions:
  - Oncology sepsis/shock patients trends ↓
  - Patients went straight to ECC, not to CCPT
  - RN and patient education about sepsis may have contributed to success
  - 2018 SJH overall sepsis mortality rate 7%, education efforts must continue

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Denise Boyd, MSN, RN, OCN
Manager, Inpatient Oncology & Infusion Clinic