Collaborative Care on the Stroke Unit: A Cross-Sectional Outcomes Study
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BACKGROUND & SIGNIFICANCE:
- A new stroke every 40 seconds; a death from stroke every 4 minutes
- $237 billion annual costs in 2010
- 15-30% of survivors suffer permanent disability
- 20% institutionalized at three months (Freiburger et al., 2011)
- High functioning collaborative teams are anticipated to be essential under value-based reimbursement.

Problems:
- Despite the high costs of stroke care, over one fourth of patients receive sub-optimal care under stroke guidelines (Allen et al., 2012)
- Medicare’s new policy of value based purchasing threatens the bottom line for hospitals with sub-optimal performance on quality measures (Liego, Loomis, Van Leuven, & Drago, 2014)

Q: Does a collaborative APN/Hospitalist Physician model of care improve outcomes on the Stroke Unit?
A: APN/hospitalist physician collaboration is a promising model for healthcare quality improvement during inpatient stroke and TIA care.

METHODS:

Purpose:
To evaluate the economic and quality outcomes associated with a collaborative APN/hospitalist physician model of care on the Stroke Unit, as compared to usual hospitalist physician-led care.

Participants:
Ischemic stroke/TIA patients. N=100 in collaborative care group; 100 in usual care group. No consent required. Experience of care survey data.

Setting:
Midwestern 800 bed private hospital with dedicated Primary Stroke Center.

Time period:
May-July 2013 collaborative care group compared to September-November 2013 usual care group.

Design:
Cross sectional review of EHR and experience of care survey data.

Outcomes:
Length of stay, readmissions, experience of care and stroke core measures.

RESULTS

Patient Experience of Care: Overall Quality of Hospital Stay (p=0.014) Overall teamwork among staff (p=0.046)
Stroke Core Quality Measures: Statin at Discharge (p=0.015)

Collaborative Care Model PERFORMED BETTER

Collaborative & Usual Models PERFORMED THE SAME

Stroke Core Quality Measures
DVT Prophylaxis
Skillful Therapy Assessments
Timely Start of Antiplatlet Vitamin K Antagonist for A-fib
Length of Stay
Stroke: 4.34 days vs. 4.3 days (p=0.953)
TIA 2.22 days vs. 1.89 days (p=.316)

Unplanned All Cause 30-day Readmissions
10% vs. 12% (p=.633)

Fewer Discharges Against Medical Advice (p=0.059)

DISCUSSION:

Anticipated Outcomes:
- Superior outcomes in length of stay and core measures among APN group; no differences in experience of care and re-admissions
- Collaborative care group experienced no AMA discharges –unexpected finding
- No differences in length of stay or re-admissions

Comparison to the Literature
Core measure performance supports the evidence base documenting positive quality outcomes when APNs are included on hospital-based teams (Russell, VorderBruegge, & Burns, 2009). Performance on experience of care and AMA discharges supports the vital communication and collaboration links that APNs provide within hospital based teams (Vazirani, Hays, Shapiro & Cowan, 2005; Williamson, Twelvetree, Thompson & Beaver, 2012). Experience of care findings and mitigating influence on AMA discharges fill a gap in the literature. Application of Transactive Memory Systems (Wegner, 1986) as theoretical framework is new to the nursing literature.

Potential Application:
Applicable to adult in-patient populations under value based reimbursement; of interest to hospitalist departments, nursing services, clinicians and administrators.

REFERENCES:

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