The Transitional Care of Hospitalized Nursing Home Residents Diagnosed with Urinary Tract Infection: A Retrospective Chart Review
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Background/Literature Review

- Nursing home (NH) residents receiving inappropriate antibiotic treatments for urinary tract infection (UTI) is well documented however, little evidence exists about the accuracy of hospital UTI diagnosis and treatment of NH residents.
- UTI are diagnosed differently in NH residents than community dwelling adults due to the presence of asymptomatic bacteriuria (ASB).
- The Infectious Disease Society of America strongly advises against treatment of ASB. 3
- Misdiagnosis of UTIs in hospitalized elderly patients is as high as 40%. 4
- Inappropriate antibiotic prescribing in emergency departments (ED) can be as high as 75% 5
- UTI is a leading nosocomial diagnosis for hospitalized NH residents. 6
- Lack of documented information about diagnoses and treatments impacts resident outcomes and the quality of care when they return to the NH.
- The documentation shared from hospitals to NHs varies widely.
- Most NH and hospital electronic medical records (EMR) do not communicate which reduces information transfer.

Objectives

The objectives of this study were to determine whether hospital clinicians appropriately diagnosed and treated UTIs and to determine the adequacy of EMRs to determine appropriate diagnosis and treatment.

Methods

- IRB approved retrospective cohort study of 3 NHs and 4 hospitals
- Hospital EMR documents shared with NHs upon discharge were reviewed
- Data collection: 3 years using an investigator developed instrument
- Included: Residents at NH 30+ days and transferred to the hospital
- UTI Criteria including signs/symptoms (S/S) per the Cooper Tool
- Variables: Age, gender, length of stay, UTI rate and appropriateness, catheter use, S/S, antibiotics used, & hospital shared documents
- Descriptive statistics with mean and SD using both Excel and SPSS

Results

- 621 residents transitioned back to NHs after hospitalization with 79 eligible as having a diagnosis and treatment of UTI
- Average age 78.9 years ± 10.5 years
- 18/79 (22.8%) were appropriately treated, SD=0.42
- 94.9% had discharge summaries & 82.3% had medication lists
- 54.4% had admitting history & physicals with only 11.4% having labs
- 111 of 185 total documented symptoms were UTI symptoms
- EMR review showed a high percent of inappropriately treated UTIs
- Several of the diagnosed and treated UTIs were missing UTI
- Descriptive statistics with mean and SD using both Excel and SPSS
- Data collection: 3 years using an investigator developed instrument
- Variables: Age, gender, length of stay, UTI rate and appropriateness, catheter use, S/S, antibiotics used, & hospital shared documents
- Experience and utilization review

Discussion & Conclusion

- EMR review showed a high percent of inappropriately treated UTIs
- Several of the diagnosed and treated UTIs were missing UTI-specific S/S with only non-UTI S/S documented in the patient EMR.
- Change in mental status was often the only documented UTI symptom, but confusion alone is not a supported sign of UTI.
- A limitation was the inconsistent documentation transfer making it difficult for researchers to discern definitively (in some cases) appropriate hospital UTI diagnosis and treatment.
- Improved documentation and a consistent transitional care process to transfer documentation between hospital and NHs to support diagnosis and treatment is needed.

References