2010

Comparing throughput of physician extenders in various volume EDs

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Comparing Throughput of Physician Extenders in Various Volume EDs

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BACKGROUND

Nurse practitioners (NP) and physician assistants (PA) are commonly utilized in busy emergency departments (ED). Each has a separate training program but typically see similar types of patients within the ED.

OBJECTIVES

To evaluate the efficiency of NPs and PAs in the ED setting based on ED volume.

Hypothesis: We believe that PAs based on the similarities in their training program to that of MD/DOs will have increased levels of efficiency regardless of ED volume.

METHODS

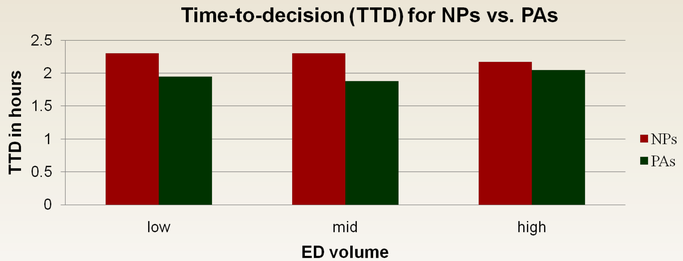
We did a 3 year retrospective review of data from 41 EDs, varying in size from 15,000 to > 45,000 visits/yr. Data from NP's (N=588) and PA's (N=1314) were stratified by ED volume: 15-30,000 (low); 30-45,000 (mid); or > 45,000 visits/yr (high).

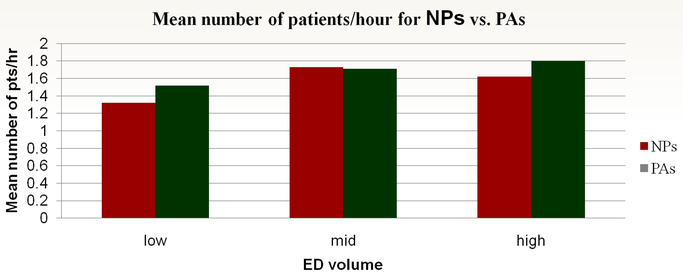
STATISTICAL METHODS

Median time-to-decision (TTD) (triage time to disposition time) in minutes with interquartile ranges was compared between PAs and NPs for each ED volume using a t-test. Mean number of patients/hr (with 95% CI) were compared between PAs and NPs for each category of ED volume using ANOVA. Statistical significance was set at $p<0.05$.

RESULTS

Median TTD for NPs was greater than PAs: 2.30, 2.20, and 2.17 hrs for low, mid, and high volume EDs respectively vs. 1.95, 1.88, and 2.05 hrs ($p<0.001$, $p=0.002$, $p=0.009$ for each volume). TTD differed significantly with ED volume for NPs ($p=0.030$), but not for PAs ($p=0.349$). Mean number of pts/hr for NPs was 1.32, 1.73, and 1.62 for low, mid, and high volume EDs vs. 1.52, 1.71, and 1.90 pts/hr for PAs ($p<0.001$, $p=0.589$, $p<0.001$ respectively). There was a significant difference by ED volume for both NPs and PAs ($p<0.001$ for both).





CONCLUSIONS

ED volume is related to throughput by TTD and patients/hr; however, PAs had shorter TTD and saw more patients/hr than NPs in most settings.

LIMITATIONS

Patient diagnosis and consultant use were not included in the study, which can both affect the overall TTD. Years in practice of the practitioners was not included. This could have an effect on both TTD and patients/hr.

DISCLOSURES

We have no disclosures and did not receive any funding for this study.

ACKNOWLEDGEMENTS

We would like to thank Dr. Christopher Richter for compiling the study information into a database and for all of his work on the statistical aspects of the study.