A Cost Effectiveness Analysis of Emergency Departments Compared to Urgent Care Centers among Medicare Beneficiaries

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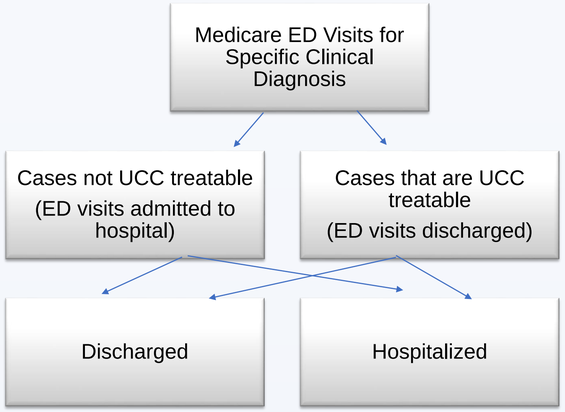
INTRODUCTION

- ED visit growth rates have increased at twice the rate of population growth between 1997 and 2007.(1)
- Between 2013 and 2019, urgent care centers (UCCs) have increased in number by 57.8%.(2)
- Estimates on amount of savings that could be made if the care of non-emergent conditions could be shifted from EDs to UCCs, range from $4 - $32 billion. (3)
- Minimal research has accounted simultaneously for both costs and outcomes through an economic evaluation.

OBJECTIVE

- The study is a cost-effectiveness analysis of a specific number of non-emergent, acute conditions that are commonly presented to UCCs and EDs by Medicare participants, namely, upper respiratory infections, urinary tract infections, sprains and strains, and superficial injury; contusion, from a payer's perspective.

METHODS



Study Population: A nationally-representative sample of Medicare patients who visited the ED during 2018 obtained through Healthcare Cost and Utilization Project (H-CUP).

Costs: Derived from the CMS Medicare Physician Fee Schedule, Current Procedural Terminology (CPT) codes and the literature.

Willingness To Pay (WTP): Assumed that the payer was willing to pay a maximum amount equivalent to the initial hospitalization costs.

Methodology: The percentage of ED visits that were hospitalized (= cases that are not UCC-treatable). The percentage of ED visits that were discharged (=UCC-treatable cases).

The Billings algorithm was applied to the latter cases producing the number of cases that were treated at a UCC.

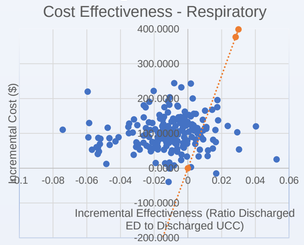
The measure of effectiveness was considered to be a case discharged from the ED or UCC.

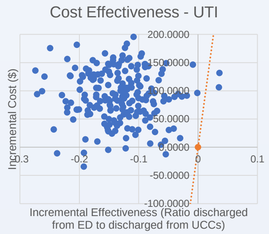
RESULTS

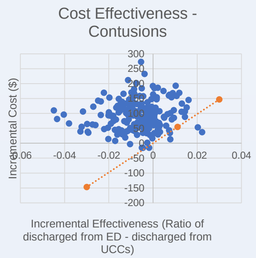
Cost Effectiveness: The CEA produced favorable ICERs for UCCs compared to EDs, depicted by the predominantly negative values.

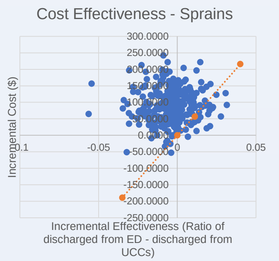
Sensitivity Analyses: A one-way sensitivity analysis was done with a ±25% variation in costs and a ±10% variation in outcomes. Results showed a 16.7% reduction in the ICER with the lower variation and a 13.6% increase with the upper variation.

Probabilistic Sensitivity Analysis: A gamma distribution was adopted for costs and a beta distribution for outcomes, The majority of PSA data was concentrated in the upper left quadrant of the cost effectiveness plane designating the area where EDs are more costly and result in a lower number of discharges, hence effectiveness.









CONCLUSIONS

- The research question was assertively answered through the study. The analysis proved that if upper respiratory infections, UTI, sprains/strains and contusions were treated in a UCC as opposed to an ED, the results would have been more cost effective.
- By exploring conditions of varying potential complexity, the research was helpful in proving the cost effectiveness of UCCs across a spectrum of clinical conditions.
- Functioning as stand-alone entities, UCCs can fill the void of backlogged primary and low to mid-acuity emergency needs at lower cost than traditional settings. Moreover, a larger scope of benefit can be realized through the integration of UCCs in the mainstream healthcare system.
- Concerted efforts towards reform that fosters more value-based and cost-effective healthcare delivery mechanisms can be achieved by capitalizing on the UCC model

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