OBJECTIVES

There is little understanding on the true cost of operating room time in Canada despite the fact that surgical care is paid for by a single payer facing increasing cost constraints. The objective of the review was to analyze how operating room (OR) costs are currently conceived of in Canadian hospitals. Additionally, a micro costing approach was used to estimate the actual cost of OR time using a bottom-up approach.

METHODS

A literature search was conducted to determine how Canadian hospitals perceived the value of one hour of OR time. A SCOPUS and google scholar search were carried out on December 15th, 2014 using the following search terms: “Canada” AND “cost operating room”; “Canada” AND “operating room cost”; “Ontario” AND “cost operating room”; “Ontario” AND “operating room cost”. For inclusion, studies were required to capture costs within a particular Canadian hospital and identify the sources and breakdown of their OR cost estimates. Studies satisfying the defined criteria were compared in terms of methodology and the inclusion and exclusion of specific resources in their perception of their institution’s OR expenditure. All costs were adjusted to 2014 Canadian dollars. Additionally, we conducted an independent bottom-up micro-costing analysis of Canadian operating room time. Completion of the literature review prior to micro costing ensured a robust and comprehensive approach was used. Costs were obtained using peer-reviewed literature (from a variety of countries) as well as case costing data from a large Canadian hospital network.

RESULTS

Specific search and inclusion criteria resulted in the inclusion of 5 studies in our analysis (see Table 1). The cost of OR time ranged significantly from $621.60 to $2288.94 per hour. All studies obtained the cost of OR time using a top-down case-costing approach informed by their respective finance departments. Each study was conducted at a different Canadian hospital and OR costs were perceived in strikingly different ways. Additionally, many of the studies lacked sufficient methodological details providing a challenge when comparing approaches. The bottom-up micro case-costing approach incorporated more than 30 individual costs and resulted in an OR hourly cost of $592.74 for the first hour of surgery. The cost of subsequent hours in the OR are likely to be inconsistent with the first hour due to differences in the usage of disposable materials, equipment sterilization and staffing requirements, which can all change as the duration of the surgical procedure increases. The micro-costing analysis does not include the costs associated with the hospital facility such as property tax, rental payments or building depreciation due to high variability between Canadian hospitals and lack of availability of information. This may account for some of the differentiation between our costs and the costs found through the literature review.

CONCLUSION

In Canada, there is little consensus between institutions of how to capture the costs of OR time. A bottom-up micro costing approach allowed for a different perspective and a more detailed analysis, but revealed little consistency with OR costing found within the literature.

REFERENCES

3. Da Cunha, 2010
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