The economics of UTI surveillance

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From an economics perspective, the question of whether the surveillance of urinary tract infection (UTI) is worthwhile depends on the returns we enjoy for the effort and cost required. Information on how long people spend doing it, how accurate the data are, how much rates are reduced as a consequence, how many costs are saved and what health benefits arise all play into a decision.¹

It might be that traditional surveillance takes some time to undertake and is quite costly. So lower cost alternatives might be sought. Understanding the effectiveness is tricky but baseline data could be compared with post-implementation data to show what is happening. Anthony Harris wrote a good review of the methods for making these judgments.² The cost savings depend on the bed days released and then how they are valued. Accounting costs do not tell us what the bed days are worth in alternate uses, but the hospital CEO might reveal what they are willing to pay for the bed days freed up. Because of activity based funding this value might be zero. The health benefits are hard to value, but if progression to more serious secondary infection is avoided they could be large.

It is reasonable to use existing data to predict changes to costs and changes to the number of cases of UTI. Much better to be prudent with the assumptions and then decision makers will take the work more seriously. Using biased studies to make unrealistic estimates of large and non-believable cost savings to the hospital is a dubious strategy.

Reduced UTI rates may also have capital on their own as HAIs are now a barometer of quality for hospitals and this might be a simpler way of convincing budget holders to fund a program. Another argument is that prevention now will preserve antibiotic effectiveness into the future, but getting data to show this is very hard. Gram-negative resistance may mean that UTIs become more difficult and more expensive to treat.

It could be that decision makers don’t put much weight on data, instead using their prior opinion and gut instinct to decide on what to do. If this is true then lobbying to change their preferences towards more infection control might work. If an economic rationale for UTI surveillance is developed then it is important to show what is foregone to do it. The opportunity cost of choosing to invest in a program is the real test of the value of the decision. There are meagre resources for infection prevention and they should be invested wisely, wild goose chases for infection control are costly and should be avoided.

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References