Economical aspects of Point of Care testing: not that simple.

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The last two years Point of Care testing has made significant progress. Not only has the quality of the analyzers and tests increased considerably, also new possibilities have been made available concerning management of the point of care program. Recently we decided our laboratory had to take responsibility for all point of care testing done in our adult and paediatric, 1042 bed, university hospital. In order to be able to control a point of care program in our hospital, we developed a strategy to introduce point of care, create acceptance in the clinic, the laboratory and with the administration. In addition, we can control the quality of care and monitor the amount and nature of point of care tests performed.
Factors to consider when assessing costs of point of care are many. The calculation of the actual costs is difficult, because introduction of Point of Care Testing has an impact on many different aspects of the clinical laboratory. In addition, factors affecting the efficiency and the quality of care in the clinic should be considered.
We chose for an integrated approach, where as many test as possible are done on one or two types of analyzers connected to one central computer at the laboratory. Connection to the Hospital Information System (HIS) is a prerequisite. In this way all test results are recorded, can be traced and billed. The connection between the central POC computer and the HIS is an expensive option, but necessary.
We calculated actual costs of tests done at the central laboratory considering: invested time needed at the ward to order the test in the usual manner with a requisition form; time and costs for the technician to come to the department to take the blood sample (or when send to the lab), time and costs in performing the analysis; time and costs in reporting the result. All this was done also for the same test in a point of care setting. Apart from the material costs and the time invested, we also tried to evaluate clinical benefits and possible savings as a consequence of these. Less blood transfusions at the NICU, shorter stay at the ICU, shorter stay in the hospital, more direct and efficient management of “low-glucose neonates” are examples of such clinical benefits. The savings because of these factors are difficult to calculate.
In our situation, the introduction of point of care testing helps us to discontinue the nightshift at the paediatric hospital (2.2 fte). At the other hand, a POC coordinator at the laboratory is necessary.
In general we find that point of care testing stimulates interaction between the clinic and the laboratory and improves patient care. These matters should be taken into account when addressing cost – benefit issues.

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