HealthManagement.org
Promoting Management and Leadership

Predictive maintenance in healthcare - If you can predict it, you can prevent it

Prof. Dr. med. Mathias Goyen
Industry Adviser
******@***goyen.de

Professor of Diagnostic Radiology
- Hamburg University, Germany
Chief Medical Officer - GE
Healthcare, Europe

LinkedIn Twitter

Predictive maintenance techniques have been introduced in several industries to help determine the condition of equipment that is already in use to predict when maintenance should be carried out. This approach promises cost savings over routine, regular preventive maintenance, because tasks are performed only when necessary, rather than because the schedule of maintenance demands a service or upgrade.

The key advantages of predictive maintenance are that it can allow timely and convenient scheduling of corrective maintenance, and can prevent unexpected equipment failure. If we know in advance which equipment needs maintenance, we can plan maintenance work better, ensuring the right engineers are on site and bring the correct spare parts with them.

This enables us to avoid unplanned stops or equipment outages, or at least to ensure these become shorter and fewer "planned stops", thus increasing availability of plant, factory and even hospital equipment. Other potential advantages include longer equipment lifetime, increased plant safety, fewer accidents with negative impact on environment, and optimized handling of spare parts.

Predictive maintenance is a continuous, iterative process. The set models improve and adapt as they continue to be used, meaning the predictions for a particular piece of equipment become more and more precise over time. Predictive maintenance differs from preventive maintenance because it relies on the actual condition of equipment, rather than average or expected life statistics, so it predicts when maintenance will be required.

The current trends in healthcare are putting pressure on healthcare providers to maintain a high degree of profitability and innovation. That is one of the reasons why medical technology and medical device manufacturers have started to implement predictive maintenance approaches to e.g. help remotely monitor CT-tubes and predict failures before any disruption occurs. It enables systems to be repaired remotely or at a more convenient time. These predictive maintenance systems help to anticipate CT failure before it happens. It can turn unplanned downtime into planned service and reduce operational downtime.

Less unplanned downtime not only means a better service for patients, it’s also good for staff morale.

Published on : Tue, 17 Apr 2018