Patient-reported outcomes and wearable data predict postop adverse events

April 25 2022

Postoperative monitoring of patient-reported outcomes (PROs) and a

wearable device is feasible and showed moderate ability to discriminate between the days the patients experienced postoperative adverse events and those they did not, according to a study published online April 15 in *JCO Clinical Cancer Informatics*.

Emma L. Barber, M.D., from Northwestern University in Chicago, and colleagues tested the feasibility of implementing a postoperative monitoring program for women with gynecologic cancers that included PROs and a wearable activity monitor. The analysis included 34 women with PROs completed at baseline and weekly for four weeks.

The researchers reported that the overall wear time was 83.8 percent and patients responded to 80.4 percent of the PRO instruments. Seven in 10 patients (22 of 34) had an unscheduled contact with the health care system postoperatively (median, 1.5). The monitoring had acceptable discrimination for predicting the day of an unscheduled health care utilization event (area under the receiver operating characteristic curve, 0.75). The most predictive PROs were fatigue and physical function, followed by wearable device outputs of lightly active minutes and average daily heart rate.

"The future of surgical care will likely incorporate some form of postoperative monitoring, allowing us to extend care for patients beyond the traditional medical complex," the authors write.

Several authors disclosed financial ties to the pharmaceutical industry.

More information: Abstract/Full Text (subscription or payment may be required)