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Remote Sensing Platform to Monitor Urine Bag

Wireless platform that tracks urine volume and conductivity in real time to reduce staff workload and improve patient outcomes.

Researchers at Purdue University have developed a remote sensing platform to continuously monitor urine bags in medical environments. Current solutions require visual monitoring from staff to assess when bags need to be replaced, and direct contact is often required to analyze for onset of urinary tract infections (UTIs). Purdue's Sticker Type Antenna for Remote Sensing (STARS) technology enables wireless measurement of conductivity and volume of fluid in the urine bag and can alert hospital staff when intervention is required. This simultaneously offers patients the continuous monitoring needed to lead to better outcomes while reducing the burden on care providers. This technology has applications in both medical and senior living environments.

Technology Validation: This technology has been validated through a proof-of-concept demonstration where the STARS system was used to detect filling and electrical conductivity of a urine bag.

Advantages:

- Continuously monitored care for patients

- Enables healthcare workers to be more effective

- Improves operational efficiency and patient outcomes

Applications:

- Patient status monitoring

- Healthcare

- Medical technology

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Category
Digital Health & Medtech/Remote Patient Monitoring & Telehealth

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