Do No Harm – Do you know if your patient has a Foley catheter?
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Story from the Front Lines
A man in his 70s with a history of hypertension, diabetes, and coronary artery disease was admitted to a hospital for a syncopal episode. He was found to have ventricular tachycardia (VT) on telemetry. VT was resistant to cardiac re-synchronization therapy, requiring amiodarone infusion and transfer to the ICU. Despite amiodarone, patient continued to have symptomatic episodes of non-sustained VT. EP was consulted and a decision was made to take the patient to the EP lab the following day. The procedure was successful without complications and the patient was brought back to the general ward for monitoring.

He did well overnight but could not be discharged the next day due to physical therapy evaluation recommending skilled nursing facility on discharge. Four days later, he was transferred back to the medical intensive care unit with severe sepsis. Urinalysis was positive and blood cultures were positive with gram negative rods. The patient became increasingly altered and eventually required intubation for airway protection as well as pressor support. It was noted by the ICU nurses that the patient had a Foley catheter but they could not find any documentation or an order indicating when or why this was placed. It was later realized that this catheter was placed during the EP procedure and never removed. With treatment, the patient improved and was discharged to a skilled nursing facility one week later.

Teachable Moment
Healthcare-associated infections (HAIs) are infections acquired while receiving medical treatment in a healthcare facility. The CDC estimates 1.7 million HAIs annually. CAUTIs (Catheter associated urinary tract infections) have been known, for a long time, to contribute significantly to HAIs. Current guidelines recommend urinary catheterization for acute urinary retention, monitoring of urinary output in critically ill patients, to aid healing of sacral wounds or decubitus ulcers, intraoperative urinary measurement for selected surgical patients, and to improve comfort in end-of-life care as necessary. Unfortunately, too often, catheters are used without a real indication or continued for longer than indicated.

In this specific case, harm was done by leaving a catheter in place for longer than medically necessary. Perioperative urinary catheter usage is intended to reduce bladder dysfunction related to surgical effects of anesthesia, analgesia and immobility. In a study which included 35,904 Medicare patients undergoing major surgery, Wald et al found that 50% of these patients had urinary catheters for longer than two days, and were twice as likely to develop urinary tract infections as those with catheterization of two days or less. Many times, clinicians are unaware that a catheter is even in place. Not only are urinary catheters used inappropriately but many times, there is not adequate documentation by nurses and physicians regarding the use of the catheter. Gokula et al found that physicians or nurses explicitly documented the reason for catheter placement in only 13% of their notes. In addition, no order for catheterization was written in 33% of the charts.

To reduce the incidence and duration of catheter use, it is important to assess and communicate the presence of a urinary catheter with the medical team on a daily basis. A systematic review in hospitalized patients reported that the use of an intervention including a reminder to staff that a catheter was in place and/or a stop order to prompt removal of unnecessary catheters reduced the
CAUTI rate by 53%. Given the association of postoperative catheter duration and adverse outcomes, this is a great target for infection control and surgical quality-improvement initiatives.

REFERENCES
2. Wald, H; Bratzler, D; Kramer, A Indwelling Urinary Catheter Use in the Post-operative Period: Analysis of National Surgical Prevention Project Archives of Surgery Vol 143 No.6 June 2008