A thorough root cause analysis built as a Cause Map can capture all of the causes in a simple, intuitive format that fits on one page.

According to Medicare data, there were 12,185 cases of Catheter-Associated Urinary Tract Infections (UTIs) in the year 2007, which resulted in an average $44,043 hospital stay. These cases represent more than $500 million in this preventable, hospital-acquired condition. As a result, Medicare and Medicaid will no longer cover costs associated with UTIs if they were not present at admission to a medical facility.

In order to work at preventing these conditions, first we must examine how they occur. We’ll do this by looking at Catheter-Associated Urinary Tract Infections in a visual root cause analysis (or Cause Map).

A UTI is an impact to our patient safety goal. A UTI is caused by pathogens accessing the urinary tract and not being removed. We will look at each of these causes in more detail.

In order for pathogens to access the urinary tract on a catheter, there must be pathogens on or in the catheter. These can be pathogens already in the body, contamination from the drainage system, or pathogens transferred on the hands of medical personnel, or by a non-sterile insertion.

The pathogens are not removed from the body either because of an insufficient immune response caused by damage to the urinary tract by improper insertion or improper securing of the catheter. Or, the pathogens are not excreted due to an obstructed urinary flow.

Once we have determined the basic causes of a UTI from our simple root cause analysis, we can consider solutions associated with the causes. For example, if a cause is "Pathogens on hands of medical personnel", a solution may be to require "Handwashing before and after manipulation of catheter site or apparatus."

Here, the potential solutions are in green boxes. If facilities began implementing some or all of these solutions, the incidence of Catheter-Associated UTIs would decrease, and patient health and satisfaction would increase.