“This is a great step toward adding strong guidance,” Dr. Nichols said. “With the realities of health care, resources and funding these days, pharmacists may be responsible for a large number of patients,” said Dr. Nichols, who is not involved in NINJA. She added that identifying who had AKI was 70% more likely to be exposed to a nephrotoxin, so “the risk for AKI doubles,” she said.

The team also found that serum creatinine, a marker for kidney injury, was collected at least once every four days in only half of the patients on multiple nephrotoxic medications. “If you’re not looking at creatinine, you’re not going to find it,” Dr. Goldstein added.

Recognizing a potentially modifiable adverse event, he decided to develop an electronic, hospital-wide (EHR-based) nephrotoxicity identification tool. The rule engine analyzes every medication administration and lab value for nephrotoxicity, and then creates an automated list of all pediatric patients who have a potential risk of nephrotoxic exposure or other AKI risk factors such as toxic exposure ranges between 15% and 25%. At Cincinnati Children’s, before NINJA was implemented, patients were considered exposed if they received three or more nephrotic drugs on the same day or an aminoglycoside for three or more days.

Hospital pharmacists then spend about 20 minutes validating the automated lists. Depending on the institution’s suggestions for serum creatinine screening or a nephrotoxic medication exposure and associated AKI, he said.

In its first year of use in NINJA, Cincinnati Children’s had 21 pediatric patient-days of exposure (Pediatr Clin North Am. 2011;58[4]:856-863). “Now instead of one or two pharmacists walking in and asking, ‘Who is exposed to a nephrotoxin?’ we can see all of this in one document,” Dr. Goldstein said.

Scalable, Customizable Software

VigiLanz, a digital health care intelligence firm, has scaled the NINJA algorithm to be functional and customizable for any hospital, regardless of EHR platform. As a result, the program is being rolled out at 140 children’s hospitals by 2020.

Dr. Goldstein and his colleagues published a pair of abstracts in 2011 detailing the use of nephrotoxic agents and the development of AKI in noncritically ill children admitted to the hospital (Pediatr Nurs. 2011;37[6]:444-450). They found that patients with AKI who had AKI were 70% more likely to be exposed to a nephrotoxin.

Recognizing a potentially modifiable adverse event, he decided to develop an electronic, hospital-wide (EHR-based) nephrotoxicity identification tool. The rule engine analyzes every medication administration and lab value for nephrotoxicity, and then creates an automated list of all pediatric patients who have a potential risk of nephrotoxic exposure or other AKI risk factors such as toxic exposure ranges between 15% and 25%. At Cincinnati Children’s, before NINJA was implemented, patients were considered exposed if they received three or more nephrotic drugs on the same day or an aminoglycoside for three or more days.

Hospital pharmacists then spend about 20 minutes validating the automated lists. Depending on the institution’s suggestions for serum creatinine screening or a nephrotoxic medication exposure and associated AKI, he said.

In its first year of use in NINJA, Cincinnati Children’s had 21 pediatric patient-days of exposure (Pediatr Clin North Am. 2011;58[4]:856-863). “Now instead of one or two pharmacists walking in and asking, ‘Who is exposed to a nephrotoxin?’ we can see all of this in one document,” Dr. Goldstein said.

Scalable, Customizable Software

VigiLanz, a digital health care intelligence firm, has scaled the NINJA algorithm to be functional and customizable for any hospital, regardless of EHR platform. As a result, the program is being rolled out at 140 children’s hospitals by 2020.

Dr. Goldstein and his colleagues published a pair of abstracts in 2011 detailing the use of nephrotoxic agents and the development of AKI in noncritically ill children admitted to the hospital (Pediatr Nurs. 2011;37[6]:444-450). They found that patients with AKI who had AKI were 70% more likely to be exposed to a nephrotoxin.

Recognizing a potentially modifiable adverse event, he decided to develop an electronic, hospital-wide (EHR-based) nephrotoxicity identification tool. The rule engine analyzes every medication administration and lab value for nephrotoxicity, and then creates an automated list of all pediatric patients who have a potential risk of nephrotoxic exposure or other AKI risk factors such as toxic exposure ranges between 15% and 25%. At Cincinnati Children’s, before NINJA was implemented, patients were considered exposed if they received three or more nephrotic drugs on the same day or an aminoglycoside for three or more days.

Hospital pharmacists then spend about 20 minutes validating the automated lists. Depending on the institution’s suggestions for serum creatinine screening or a nephrotoxic medication exposure and associated AKI, he said.

In its first year of use in NINJA, Cincinnati Children’s had 21 pediatric patient-days of exposure (Pediatr Clin North Am. 2011;58[4]:856-863). “Now instead of one or two pharmacists walking in and asking, ‘Who is exposed to a nephrotoxin?’ we can see all of this in one document,” Dr. Goldstein said.

Scalable, Customizable Software

VigiLanz, a digital health care intelligence firm, has scaled the NINJA algorithm to be functional and customizable for any hospital, regardless of EHR platform. As a result, the program is being rolled out at 140 children’s hospitals by 2020.

Dr. Goldstein and his colleagues published a pair of abstracts in 2011 detailing the use of nephrotoxic agents and the development of AKI in noncritically ill children admitted to the hospital (Pediatr Nurs. 2011;37[6]:444-450). They found that patients with AKI who had AKI were 70% more likely to be exposed to a nephrotoxin.