

# Building a roadmap for reducing high-cost drug use

## Project aims to get IV acetaminophen utilization under control



When annual spending on intravenous (IV) acetaminophen increased more than \$100,000 in one year, Lucile Packard Children's Hospital Stanford implemented a project to reduce use of the overprescribed drug. The effort reinforced the hospital's goal of managing costs through appropriate drug utilization and disease management.

### Data show high use of costly drugs

Packard Children's was one of the highest users of IV acetaminophen among CHA's Pediatric Health Information System (PHIS) hospitals. Providers used the medication across all service lines with the belief that it was a safer alternative to opioids. It had a substantial impact on the pharmacy budget.

The hospital identified IV acetaminophen as a high-cost medication, with total inpatient spending in line with other high-cost drugs such as Neulasta, Remicade, Xolair, inhaled nitric oxide, and IV immune globulin. This information helped the affordability committee identify and prioritize reducing IV acetaminophen usage.

### 6 approaches to reduce IV acetaminophen use

**Find clinical champions.** Identify key influencers in your facility, or your largest areas of usage, who can help you transition to a more cost effective and appropriate usage of acetaminophen.

**Create order defaults.** Default the duration of IV acetaminophen orders to 24 hours. This requires the medical team to evaluate the need for continuation of the therapy.

**Leverage technology.** Develop the proper alerts in your ordering platform to aid in converting patients to oral administration. The alert should be easily actionable to improve providers' acceptance.

**Evaluate changes.** Monitor key performance indicators for intended changes, and don't be discouraged if results are not as expected. The solution may require multiple iterations.

**Test the changes.** Use the plan-do-check-act (PDCA) cycle to evaluate and improve the solutions as needed. Share your successes.

**Focus on feedback.** Positive feedback will encourage continual engagement and participation in the process changes.

## Process change leads to success

A multidisciplinary team was key to evaluating solutions. The team focused on sustainable interventions with measurable key performance indicators. This included defaulting the duration of IV acetaminophen orders to 24 hours, and creating best practice alerts to guide ordering providers on the cost-effective usage of IV acetaminophen. For example, Packard Children's created a best practice alert that triggered when a diet order was placed for a patient with an existing IV acetaminophen order. This gave ordering providers the option to allow pharmacists to assume the responsibility of converting to an enteral formulation.

## Find your champions

Recruit physicians, pharmacists, nursing staff and faculty, as well as process improvement, information systems (IS/IT) and medical safety.

- **Physicians.** Assign a physician champion and pharmacist partner to each high-cost drug.
- **Nursing.** Create simple processes and educate bedside providers on best practice to maintain reduced usage.
- **Medical safety.** Use medical safety personnel advocates to reduce IV utilization, in quantity and duration, decreasing risks for infections such as central-line associated bloodstream infections.
- **IS/IT.** Develop engineering solutions with information systems teams that will help clinicians maintain processes and reduce utilization.

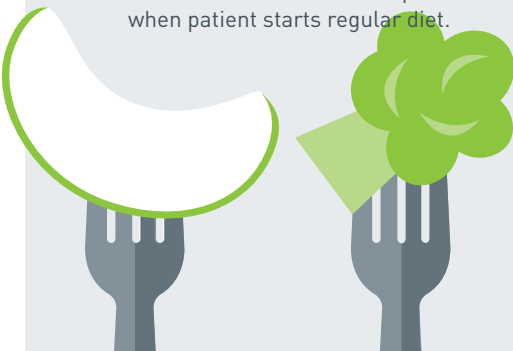
### 3 steps to reign in utilization

1. Identify leaders within high utilization areas willing to lead the change with you.
2. Prepare for conversations about the effect on patient safety, infection reduction initiatives, or levels of care.
3. Work with your information system teams early. Electronic medical record changes often take longer than anticipated.

## Results from efforts to reduce utilization

### Practice alerts

EHR advisory prompts pharmacy to discontinue IV acetaminophen when patient starts regular diet.



### Default orders

Evaluation and manual change required if needed for more than 24 hours.

### Lower usage

From 2016 to 2018, expenditures of IV acetaminophen decreased 24%.

