



# Six Ways Your Pharmacist Can Save the Day

Improve Patient Outcomes and Reduce Overall Health Care Spending

## 1 REDUCE HOSPITAL-ACQUIRED INFECTIONS

### Pharmacist-Led Antibiotic Stewardship Programs

Every year bacterial infections cost the health care industry billions and threaten the health of thousands of patients. In 2015, just one bacteria, *C. difficile*, caused 250,000 infections, with 14,000 resulting in death. Moreover, antibiotic overuse and misuse contribute to the rise of antimicrobial resistance.

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#### Practice in Action: Spectrum Health

Spectrum was concerned about the level of antibiotic usage in the hematology/oncology unit, as well as the related hospital-acquired *C. difficile* rate. So they created an antibiogram, a report that shares the results of antimicrobial susceptibility testing across a specific unit. With the results of the antibiogram in hand, a clinical pharmacist and physician rounded together to make collaborative antibiotic decisions.

#### Results

47% ✓

Decrease in antibiotic usage across 2013 compared with 2012

69% ✓

Decrease in hospital-acquired *C. difficile* rate in the hematology/oncology unit during 2013

\$449K

Savings in overall antibiotic costs and avoided infections in 2013

## 2 REDUCE ADVERSE DRUG EVENTS

### Pharmacist-Led Medication Reconciliation in the ED

Among the most common preventable errors in the hospital, approximately 1.5M adverse drug events occur annually due to medication errors. In addition to the negative consequences for patients, these errors cost hospitals more than \$3B per year.

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#### Practice in Action: Huntington Hospital

Huntington wasn't satisfied with the number of medication errors and medication administrative delays in their ED. They wanted to address these issues and chose to add new personnel rather than increasing hospitalists' duties. Huntington conducted a six-month pilot study in the ED, putting clinical pharmacists in charge of collecting patient histories and medication lists.

#### Results

90% ✓

Decrease in medication history inaccuracy in the first two months

73%

Percentage of interventions that prevented an inaccuracy with a high potential for patient harm

97% ✓

Decrease in medication administration delays in the first two months

## 3 ENHANCE EFFICIENCY

### Expanded Clinical Pharmacist Role in the Infusion Center

Patients in the infusion center have complex and unpredictable needs, making efficiency a top priority.

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#### Practice in Action: UNC Lineberger Comprehensive Cancer Center

A clinical pharmacist developed rapid infusion protocols for rituximab based on a report published in *Blood*. The report indicated that rapid infusion was as safe as the slower infusion recommended by the drug manufacturer.

#### Results

91 minutes

Average amount of time saved per infusion using pharmacist protocol

100-150

Additional infusion visits enabled per year

## 4 IMPROVE END-OF-LIFE CARE

### Increased Pharmacist Role in Palliative Care

Patients nearing the end of life are among the most complex. They experience an average of three transitions of care. As a result, there are many opportunities for medication errors. Inclusion of a pharmacist on the palliative care team ensures timely and appropriate decisions about when drugs become unnecessary or counterproductive.

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#### Practice in Action: MedStar Health

To improve care for patients at the end of life, MedStar mandated that each palliative care team include a pharmacist. The pharmacist focused on discontinuing unnecessary drugs to improve patient comfort and reduce costs.

#### Results

79.9%

Percentage of patients seen by pharmacists who achieve their desired clinical outcome

## 5 IMPROVE MEDICATION ADHERENCE

### Pharmacist Medication Therapy Management Services

Between 20% and 50% of patients do not take their prescription medications as directed. Medication-related problems cost \$177.4M yearly, including 700,000 emergency room visits and 120,000 resulting hospital admissions. By providing medication therapy management services, pharmacists are able to develop a "close and trustworthy" relationship with patients, driving up adherence rates.

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#### Practice in Action: Kaiser Permanente Diablo Service Area

Kaiser wanted to drive improvement in medication adherence and prevent disease relapse among its oncology patients. Those taking imatinib were assigned an oncology pharmacist. The pharmacists conducted in-person clinic visits immediately after patients received their diagnosis. They then followed up by phone and email to monitor adverse events and provide information about financial assistance.

#### Results

65.8%

Control group adherence rate

88.6%

Adherence rate among oncology pharmacist-managed patients

## 6 REDUCE READMISSIONS

### Expanded Pharmacist Role in Chronic Disease Management

As the U.S. population ages, patients are getting more complex. In 2012, half of all adults had one or more chronic health conditions. What is most surprising is that 86% of health care spend in 2010 went to those living with chronic illness. Pharmacist-led efforts that capture even a few percentage points of improvement will have outsized effects on the bottom line.

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#### Practice in Action: Hennepin County Medical Center

Hennepin County Medical Center embedded pharmacists and pharmacy residents in clinical sites. The pharmacy staff provided direct support for administrative, analytical, and billing services related to chronic disease management.

#### Results

\$2,000 ✓

Average decrease in variable costs per patient per year

2 drugs

Average number of medication therapy problems identified per visit

3.4% ✓

Decrease in 30-day readmission rate at hospital ambulatory clinics

Sources for all cited statistics can be found on [advisory.com/pef/PharmacistsSaveTheDay](http://advisory.com/pef/PharmacistsSaveTheDay).