

Welcome to the Winter 2011 issue of IPRO's Hospital Patient Safety News

In this issue we present updates on the Centers for Medicare & Medicaid Services (CMS) 9th Scope of Work (SOW) Patient Safety Initiative Projects, upcoming events, articles of interest and educational resources. If you have a best practice, tools, or resources that you would like for us to feature in a future issue, please forward the information to Gloria Stone at gstone@nyqio.sdps.org.

If you have colleagues that you believe should be receiving this newsletter, they can request their own subscription by sending an e-mail to Gloria Stone at gstone@nyqio.sdps.org.

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IPRO's Patient Safety Initiative Projects

MRSA Project:

Reducing rates of healthcare-associated Methicillin-resistant *Staphylococcus aureus* (MRSA) infections;

Surgical Care Improvement/Heart Failure (HF) Project (SCIP):

Improving inpatient surgical safety and heart failure treatment; and

Medication Safety:

Reducing the prevalence of prescribing potentially inappropriate drugs with anticholinergic properties to seniors and improving the quality of warfarin management.

MRSA Project

Parts of the Hand Often Missed During Hand Washing

We all wash our hands because doing so is the most important defense for preventing infections. But are we all washing our hands thoroughly? Washing your hands thoroughly means also washing your thumbs, backs of fingers, backs of hands and underneath fingernails. Although this seems simple, it doesn't hurt to remind yourself, your staff and your colleagues about the benefits of thorough hand washing.

The World Health Organization has a step-by-step guide for ensuring safety through thorough hand washing. You can view the steps at

http://www.who.int/gpsc/clean_hands_protection/en/index.html.

For additional information, a review of hand washing, and a brochure by the Association for Professionals in Infection Control and Epidemiology, Inc. (APIC), visit

<http://www.apic.org/AM/Template.cfm?Section=Search§ion=Brochures&template=/CM/ContentDisplay.cfm&ContentFileID=219>.

Test Your Knowledge: Hand Hygiene Quiz



People learn and remember information in a variety of ways. Try using this five-question quiz as a way for staff to gauge knowledge about hand hygiene. The Institute for Healthcare Improvement, in partnership with the Centers for Disease Control and Prevention, Association for Professionals in Infection Control and Epidemiology, and the Society of Healthcare Epidemiology of America, developed a guide to assist organizations in reducing healthcare associated infections by improving hand hygiene practices. You can download the guide at

<http://www.ihl.org/NR/rdonlyres/FAB62443-4AB9-4466-88E9-9D21C935CE9F/3266/HandHygieneHowtoGuide2.pdf>. You can find this quiz on pages 27 and 28.

1. In which of the following situations should hand hygiene be performed?
 - A. Before having direct contact with a patient
 - B. Before inserting an invasive device (e.g., intravascular catheter, foley catheter)
 - C. When moving from a contaminated body site to a clean body site during an episode of patient care
 - D. After having direct contact with a patient or with items in the immediate vicinity of the patient
 - E. After removing gloves

Circle the number for the best answer:

1. B and E
2. A, B and D
3. B, D and E
4. All of the above

2. If hands are not visibly soiled or visibly contaminated with blood or other proteinaceous material, which of the following regimens is the most effective for reducing the number of pathogenic bacteria on the hands of personnel?

Circle the letter corresponding to the single best answer:

- A. Washing hands with plain soap and water
- B. Washing hands with an antimicrobial soap and water
- C. Applying 1.5 ml to 3 ml of alcohol-based hand rub to the hands and rubbing hands together until they feel dry

3. How are antibiotic-resistant pathogens most frequently spread from one patient to another in health care settings?

Circle the letter corresponding to the single best answer:

- A. Airborne spread resulting from patients coughing or sneezing
- B. From one patient to another via the contaminated hands of clinical staff
- C. Patients coming in contact with contaminated equipment
- D. Poor environmental maintenance

4. *Clostridium difficile* (the cause of antibiotic-associated diarrhea) is readily killed by alcohol-based hand hygiene products

- ☐ True
- ☐ False

5. Which of the following statements about alcohol-based hand hygiene products is accurate?

Circle the letter corresponding to the single best answer:

- A. They dry the skin more than repeated hand washing with soap and water
- B. They cause more allergy and skin intolerance than chlorhexidine gluconate products
- C. They are effective even when the hands are visibly soiled
- D. They cause stinging of the hands in some providers due to pre-existing skin irritation
- E. They kill bacteria less rapidly than chlorhexidine gluconate and other antiseptic containing soaps

Answers: 1. (4); 2. (C); 3. (B); 4. (False); 5. (D)

Source: Institute for Healthcare Improvement. (4/03/2006). *How-to-Guide: Improving Hand Hygiene A Guide for Improving Practices among Health Care Workers*. <http://www.ihl.org/NR/rdonlyres/FAB62443-4AB9-4466-88E9-9D21C935CE9F/3266/HandHygieneHowtoGuide2.pdf>.

Regional and State Government Activities to Reduce Healthcare-Associated Infections (HAIs)



Projects and Awards for Eliminating HAIs

The Office of Healthcare Quality (OHQ) was established by the Assistant Secretary for Health in December 2009 to lead and coordinate cross-cutting initiatives that strengthen the health system and improve the quality of healthcare and public health across the United States. It is located within the Office of the Assistant Secretary for Health, in the U.S. Department of Health and Human Services.

OHQ funds or supports a number of projects to advance the elimination of healthcare-associated infections by promoting science, recognizing significant achievement at the bedside, and promoting national partnerships and development of infrastructure. In May 2010, Region 2, which includes New York State, was awarded one of nine regional HAI Prevention Projects. Information about the Region 2 project is provided below.

Education and Outreach to Healthcare Providers in Ambulatory Surgical Centers for the Prevention and Reduction of Healthcare Associated Infections: A Pilot Project

Key Project Elements: Assess and develop educational outreach in HAIs for Ambulatory Surgery Centers. Educational programs developed will seek to meet the needs of the diverse population of this Region, to include materials aimed at Spanish-speaking populations, urban and rural communities, and a wide range of socio-economic levels.

Information about the other regional and state government activities to reduce HAIs can be found at <http://www.hhs.gov/ash/initiatives/hai/projects/index.html>.

Healthy People 2020



Healthy People provide science-based, 10-year national objectives for improving the health of all Americans. For three decades, *Healthy People* has established benchmarks and monitored progress over time in order to: encourage collaborations across sectors, guide individuals toward making informed health decisions and measure the impact of prevention activities.

For 2020, Healthy People has added two new objectives to the initiative:

Reduction of central line-associated bloodstream infections, and

Reduction of invasive healthcare-associated MRSA infections.

Read more about *Healthy People* at:

<http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=17>.

The Vermont Experience

The Vermont Department of Health has partnered with the Centers for Disease Control and Prevention (CDC) in an exciting new project to demonstrate that preventing healthcare-associated infections is a "winnable battle". They formed the Vermont MDRO (multi-drug resistant organisms) Prevention Collaborative with hospitals and nursing homes. The goal was for front-line staff to share ideas and to bring acute care infection prevention experience into long-term care settings.

Facilities were grouped into 13 healthcare "clusters." Each cluster has at least one hospital, plus the local long-term care facilities that use that hospital's lab. These facilities care for the same communities, and therefore they address MDROs and will measure the impact of their efforts together as a team.

Clusters have been asked to use strategies, such as: active identification and specific management for patients carrying MDROs; standard communication about patients carrying MDROs as they move among facilities; minimizing use of devices and antibiotics that can increase MDRO risk; and enhancing infection prevention activities. The organizations within each cluster decide which interventions are feasible in their facilities and work together on implementation.

You may find some ideas for implementation in your facility at <http://blogs.cdc.gov/safehealthcare/?p=1077>.

SCIP Project

Resources for the Prevention of Catheter-Associated Urinary Tract Infections (CAUTI)



The urinary tract is the most common site of healthcare-associated infection, accounting for more than 30% of infections reported by acute care hospitals. Virtually all healthcare-associated urinary tract infections (UTIs) are caused by instrumentation of the urinary tract.

CAUTI can lead to such complications as: cystitis, pyelonephritis, gram-negative bacteremia, prostatitis, epididymitis, and orchitis and, less commonly, endocarditis, vertebral osteomyelitis, septic arthritis, endophthalmitis, and meningitis. Complications associated with CAUTI cause discomfort to the patient, prolonged hospital stay, and increased cost and mortality. Each year, more than 13,000 deaths are associated with UTIs.

View the following for information about the prevention of catheter-associated urinary tract infections:

Association for Professionals in Infection Control and Epidemiology (APIC) APIC Elimination Guides

http://www.apic.org/AM/Template.cfm?Section=APIC_Elimination_Guides&Template=/CM/HTMLDisplay.cfm&ContentID=16388.

Infection Control Hosp Epidemiology 2008;29:S41-S50

Strategies to Prevent Catheter-Associated Urinary Tract Infections in Acute Care Hospitals

<http://www.premierinc.com/safety/topics/HAI/downloads/HAI-Compendium-HAI-ca-uti.pdf>.

Centers for Disease Control and Prevention

Guideline for Prevention of Catheter-Associated Urinary Tract Infections, 2009

http://www.cdc.gov/hicpac/cauti/001_cauti.html.

Patient Safety Authority (Commonwealth of Pennsylvania)

CAUIT Prevention Practices

<http://patientsafetyauthority.org/EducationalTools/PatientSafetyTools/cauti/Pages/home.aspx>.

Nevada Department of Health and Human Services

CAUTI Maintenance Bundle

http://health.nv.gov/HCQC/HAI/CAUTI_Maintenance_Bundle.pdf.

Patient Safety: Role of the Patient and Family

Everyone has a role in making healthcare safe, including doctors, healthcare executives, nurses, technicians, and patients and their families. Healthcare organizations all across the country are working to make healthcare safe. Patients and their families must be made aware that they should be active, informed and involved members of their healthcare team.

The Joint Commission's National Patient Safety Goal addresses this issue, stating that healthcare organizations should "encourage patients' active involvement in their own care as a patient safety strategy". Efforts to engage patients in safety focused on: (1) detecting adverse events; (2) empowering patients to ensure safe care; and (3) emphasizing patient involvement as a means of improving the culture of safety.

Speak UP™

To educate patients about their roles, The Joint Commission, in partnership with the Centers for Medicare & Medicaid Services, launched Speak UP, an award-winning patient safety program. Patient-focused materials are available for download at www.jointcommission.org/speakup.aspx.

In addition to the above, the following organizations provide patient education materials and resources which your facility could use or adapt for your patient education programs.

The Agency for Healthcare Research and Quality www.ahrq.gov/qual/errorsix.htm.

The American College of Physicians

www.acponline.org/running_practice/patient_care/safety/patient.htm The National Patient Safety Foundation www.npsf.org/paf/pafrg/

Celebrate Patient Safety Awareness Week!

Patient Safety Awareness Week is **March 6-12**. Go to www.npsf.org for information and materials.

Stories at Work: Share your Successes and Challenges

We can learn a great deal from how our colleagues overcame challenges and succeeded in improving quality and processes.

Do you have a story you would be willing to share?

- Did you have a "near miss" that was caught because your policies worked?
- Has working on a patient safety project with IPRO helped you improve patient care?

Sample topics are provided below:

- One hospital developed a hand washing video to communicate the importance of infection control.
- Another hospital implemented a process change recommended by their patient advisory council.
- A hospital implemented process changes due to a reportable event that puts checks in place to ensure similar events will never take place again.



Please email your story to Karline Roberts at kr Roberts@nyqio.sdps.org and include the following information

1. Hospital Name.
2. Your name, title and contact information.
3. A brief outline of your story including opportunities for improvement that were identified and improvement strategies that were implemented.
4. Please indicate if you would be willing to present your story on a call, webinar or at a conference.

Medication Safety Project



“Red Flags” for Identifying Medication Related Problems

Medication-related problems (MRPs) are events or circumstances involving drug therapy that actually or potentially interfere with desired health outcomes. The impact of medication-related problems is extreme in patient suffering with adverse drug events responsible for 3-20% of hospitalizations and estimated costs of \$177 billion a year among elderly ambulatory patients.^{1,2,3} An estimated 6.7% of hospitalized patients experience an adverse drug event.⁴ These statistics are especially alarming given that more than 50% of ADEs are preventable.⁵ Education of clinical staff in identifying, resolving and preventing MRP's is essential. Medical literature has also shown repeatedly that certain drugs and categories of drugs are high risk for causing ADR's (Table 1) and all clinicians should be aware of patient signs and symptoms or “red flags” which may indicate the occurrence of a medication related problem (Table 2). Warfarin, insulin, non-steroidal anti-inflammatory agents, digoxin, and drugs which are considered potentially inappropriate for use the elderly (anticholinergics, benzodiazepines and others) have been identified agents responsible for hospitalizations due to adverse events.⁶

Clinicians should take note of baseline patient characteristics and be attuned to worsening condition. Not only must clinicians observe patients carefully, they must also listen to patients and caregivers regarding changes in patient status and take any information provided seriously. Often only the patients or at home caregivers will be able to provide information regarding baseline health, therefore identifying and resolving the cause of an exacerbation in an existing condition may result in better outcomes and shorter length of stay for the patient. For example, an elderly patient may present to the hospital as “confused” but inpatient prescribing of a drug such as hydroxyzine can worsen the level of confusion and cause sedation, among other potential adverse effects. In this case an alert clinician can identify hydroxyzine as the offending agent and seek an appropriate alternative. Tools for identifying anticholinergic drugs, their adverse effects and appropriate alternatives can be found on IPRO's Decreasing Anticholinergic Drugs in the Elderly program website at <http://www.ipro.org/index/medication-safety-resources#dade>.

Evidence-based system wide quality improvement initiatives are essential in preventing medication related problems, employing multiple tools to capture the range of problems that can occur in a complex system. Patient-centered shared multidisciplinary responsibility for medication safety is essential. Some strategies for increasing the safety of medication use include the use of computerized decision support systems, educational programs, utilizing clinical pharmacist expertise on rounds, use of evidence-based tools to guide prescribing and implementation of an effective medication reconciliation program on admission, between care units and at discharge.⁷

Table 1: Examples of Drugs and Drug Categories Associated with preventable Adverse Drug Events

Analgesics – NSAIDs (ibuprofen, naproxen), opiates
 Antibiotics
 Anticholinergics – diphenhydramine, hydroxyzine, benztropine, meclizine, promethazine
 Anticoagulants –warfarin, heparin
 Cardiovascular agents- digoxin, diuretics, vasodilators
 Central Nervous System agents – benzodiazepines, antipsychotics, antiepileptics
 Hypoglycemics - insulin

Table 2: “Red Flags”: Possible Symptoms of Medication Related Problems

Bruising, bleeding, blood in stool	Changes in speech
Confusion	Delirium
Depression	Falls
Incontinence	Hypotension
Insomnia	Lethargy
Loss of appetite	Nausea, vomiting
Parkinson’s-like symptoms	Rash

¹ Budnitz DS, Shehab N, Kegler SR, Richards CL. Medication use leading to emergency department visits for adverse drug events in older adults. *Ann Intern Med.*2007;147:755-765.

² Pirmohamed M, James S, Meakin S, Green C, Scott AK, Walley TJ, et al. Adverse drug reactions as a cause of admission to hospital: prospective analysis of 18,820 patients. *BMJ.*2004;329:15-19.

³ Ernst FR, Grizzle AJ. Drug-related morbidity and mortality: updating the cost of illness model. *J Am Pharm Assoc (Wash).* 2001; 41: 192-199.

⁴ Lazarou J, Pomeranz BH, Corey PN. Incidence of adverse drug reactions in hospitalized patients: a meta-analysis of prospective studies. *JAMA.*1998;279:1200-1206.

⁵ Gurwitz JH, Field TS, Harrold LR. Incidence and preventability of adverse drug events among older persons in the ambulatory setting. *JAMA.* 2003;289:1107-1116.

⁶ Budnitz DS, Shehab N, Kegler SR, Richards CL. Medication use leading to emergency department visits for adverse drug events in older adults. *Ann Intern Med.*2007;147:755-765.

⁷ Page II RL, Linnebur SA, Bryant LL, Ruscin JM. Inappropriate prescribing in the hospitalized elderly patient: defining the problem, evaluation tools and possible solutions. *Clin Int Aging.* 2010;5:75-87.

Back to Basics Corner

Radar Charts

A radar chart is a graphical display method for multivariate data. Radar graphing, a form of radial graphing, has great utility in the presentation of health-related research, especially in situations in which there are large numbers of independent variables, possibly with different measurement scales. This technique has particular relevance for those who wish to illustrate the degree of multiple-group similarity/consensus, or group differences on multiple variables in a single graphical display. The radar chart is also known as spider chart.

Use a radar chart when you want to:

- show the gaps among performance areas
- show outliers
- reveal the pattern in a data set
- display multiple performance metrics over time
- demonstrate several different factors that are all related to one item

Do not use a radar chart when it is:

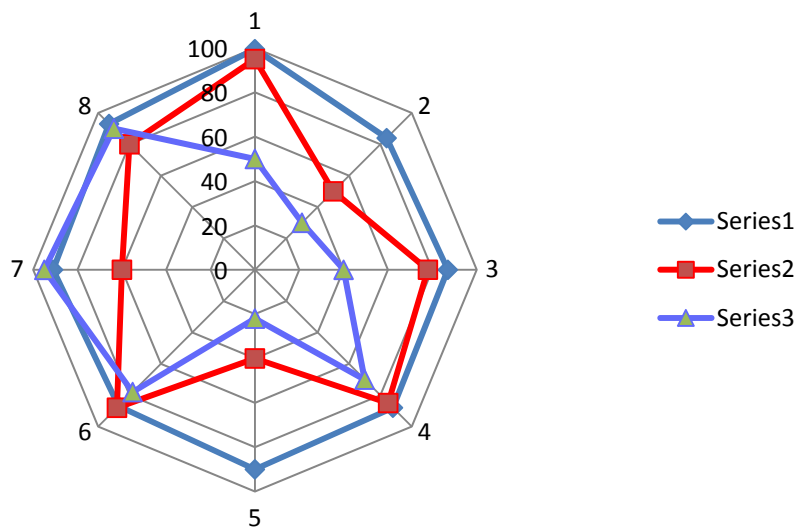
- hard to judge the distances of the grid lines, or
- difficult to use as a decision maker.

How to construct a radar chart:

1. Determine the measures.
 - There should be a limited number of measures because the chart becomes too busy with too many measures
2. Enter Data into Excel.

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8
Measure 1	99.5	84	87	88	90	87	91	93
Measure 2	95	50	78	85	40	88	60	80
Measure 3	50	30	40	70	22	78	95	90

3. On the Insert tab, in the Charts group, click Other Charts
4. Choose Radar



Analysis:

- The point closest to the center indicates a low value
- The point nearest the edge is the higher value
- The area with the largest gap is the area that needs improvement

The Hospital Patient Safety Staff at IPRO

Karline Roberts, Director of Hospital Projects
kroberts@nyqio.sdps.org

Bill Gardiner, Senior Quality Improvement Specialist
wgardiner@nyqio.sdps.org

Darren Triller, Senior Director of Pharmacy
dtriller@nyqio.sdps.org

Esmeralda Braganca, Quality Improvement Specialist, MRSA Project
ebraganca@nyqio.sdps.org

Chad Wagoner, Quality Improvement Specialist
cwagoner@nyqio.sdps.org

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