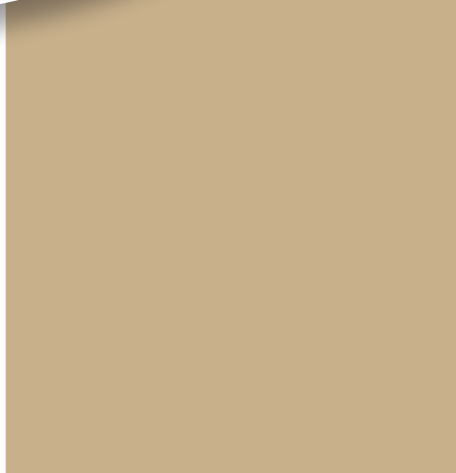


# RODs ROPs



## Required Organizational Practices

September 2011



**ACCREDITATION CANADA**  
**AGRÉMENT CANADA**

*Driving Quality Health Services*  
*Force motrice de la qualité des services de santé*

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ACCREDITATION CANADA  
AGRÉMENT CANADA

*Driving Quality Health Services  
Force motrice de la qualité des services de santé*

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# OVERVIEW

Accreditation Canada defines a Required Organizational Practice (ROP) as an essential practice that organizations must have in place to enhance patient/client safety and minimize risk.

In the Qmentum accreditation program, ROPs are vital components of patient safety and quality improvement.

ROPs are reviewed annually and updated as required. New ROPs are developed as recommended by expert advisory committees and field-specific consultation.

ROPs are categorized into six patient safety areas, each with its own goal

- **SAFETY CULTURE:** Create a culture of safety within the organization
- **COMMUNICATION:** Improve the effectiveness and coordination of communication among care and service providers and with the recipients of care and service across the continuum
- **MEDICATION USE:** Ensure the safe use of high-risk medications
- **WORKLIFE/WORKFORCE:** Create a worklife and physical environment that supports the safe delivery of care and service
- **INFECTION CONTROL:** Reduce the risk of health care-associated infections and their impact across the continuum of care/service
- **RISK ASSESSMENT:** Identify safety risks inherent in the client population

Accreditation Canada began developing ROPs in 2004 under the leadership of its Patient Safety Advisory Committee. Initial work includes national and international literature reviews to identify major patient safety risk areas and best practices, analysis of patient safety-related accreditation on-site survey results and compliance issues, and research into related activities in other international accrediting bodies. Before being released to the field, each ROP is then subject to extensive testing, consultation, and feedback from expert advisory committees, client organizations, surveyors, and other stakeholders such as governments and content experts.

For more information on ROPs, Accreditation Canada, or the Qmentum accreditation program, visit [www.accreditation.ca](http://www.accreditation.ca).



# ABOUT THE ROP HANDBOOK

For convenience and ease of use, all ROPs that appear in the standards have been collected into this handbook.

Most ROPs are applicable to more than one set of standards, and some of them, such as medication reconciliation, are customized for a specific service or field.

Each ROP in this handbook is presented as follows:

- *The ROP*  
**e.g. Adverse Events Disclosure**  
**The organization implements a formal and open policy and process for disclosure of adverse events to clients and families, including support mechanisms for clients, family, staff, and service providers involved in adverse events.**
- *Guidelines*  
The guidelines provide context and rationale on why the ROP is important to patient safety and risk management, supporting evidence, and information about meeting the tests for compliance.
- *Tests for Compliance*  
The tests for compliance show the specific requirements that are assessed to establish compliance with the ROP. Even one unmet test for compliance results in an unmet rating for that ROP.
- *Reference Material*  
This section shows sources of supporting evidence used to develop the ROP, as well as tools and resources to assist organizations in meeting requirements.



## ADVERSE EVENTS DISCLOSURE

**The organization implements a formal and open policy and process for disclosure of adverse events to clients and families, including support mechanisms for clients, family, staff, and service providers involved in adverse events.**

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### GUIDELINES

Research shows a positive relationship between client satisfaction with how an adverse event is handled by an organization and formal open disclosure. Disclosing adverse events in an open and timely manner may maintain the client's relationship with the health service organization, staff and service providers, and reduce the risk of litigation.

Core elements of disclosure include discussing the event with the client, family, and relevant staff or service providers; acknowledging or apologizing for the event; reviewing the actions taken to mitigate the circumstances surrounding the event; discussing corrective action to prevent further similar adverse events; responding to client, family and staff or service provider questions; and offering counselling to staff, service providers, and clients involved.

The Canadian Disclosure Guidelines, published by the Canadian Patient Safety Institute (CPSI) is a resource intended to encourage and support healthcare providers, interdisciplinary teams, organizations and regulators in developing and implementing disclosure policies, practices and training methods. They can be accessed on the CPSI website.

The disclosure policy and process is in compliance with any applicable legislation and within any protection afforded by legislation.

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### TESTS FOR COMPLIANCE

- There is a written policy for disclosure of adverse events to clients and families.
- The disclosure policy includes support mechanisms for clients, families, staff, and service providers.
- There is evidence of a process for disclosure of adverse events to clients, families, staff, and services providers.

---

### REFERENCE MATERIAL

- (1) Iedema, R, Sorensen R, Manias E, Tuckett A, Piper D, Nadine M, Williams A, Jorm C. Patients' and Family Members' Experiences of Open Disclosure Following Adverse Events. *International Journal for Quality in Health Care*. 2008;20(6):421-432.
- (2) Iedema R. A New Structure of Attention? Open Disclosure of Adverse Events to Patients and Their Families. *Journal of Language and Social Psychology*. 2009;28(2):139-157.
- (3) Trombly ST. Adverse Events Require Communication and Disclosure. 2006. <http://www.apsf.org>
- (4) Steve S. Kraman, MD, and Ginny Hamm, JD. Risk Management: Extreme Honesty May Be the Best Policy. *Annals of internal medicine*. 1999;131:1212, 963-967.
- (5) R. Chafe, W. Levinson, and T. Sullivan. Disclosing errors that affect multiple patients. *Can. Med. Assoc. J*. 2009;180(11):1125 - 1127.
- (6) Canadian Patient Safety Institute. Canadian Disclosure Guidelines. May 2008. <http://www.patientsafetyinstitute.ca/English/toolsResources/disclosure/Documents/CPSI%20-%20Canadian%20Disclosure%20Guidelines%20English.pdf>



## ADVERSE EVENTS REPORTING

**The organization establishes a reporting system for adverse events, sentinel events, and near misses, including appropriate follow-up. The reporting system is in compliance with any applicable legislation, and within any protection afforded by legislation.**

---

### GUIDELINES

An adverse event is an unexpected and undesirable incident directly associated with the care or services provided to the client. The incident occurs during the process of receiving health services. The adverse event is an adverse outcome, injury or complication for the client.

A sentinel event is an adverse event that leads to death or major and enduring loss of function for a recipient of healthcare services. Major and enduring loss of function refers to sensory, motor, physiological, or psychological impairment not present at the time services were sought or began, i.e. a client dies or is seriously harmed by a medication error.

A near miss is an event or situation that could have resulted in an accident, injury or illness to a client but did not, either by chance or through timely intervention.

The reporting system for adverse events, sentinel events and near misses may be part of a larger incident reporting system.

The goal of the reporting system for adverse events, sentinel events and near misses is to learn from the event, prevent recurrences, and strengthen the culture of safety.

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### TESTS FOR COMPLIANCE

- There is a reporting policy and process to report adverse events, sentinel events, and near misses.
- Improvements are made following investigation and follow-up.

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### REFERENCE MATERIAL

- (1) (Canadian Patient Safety Dictionary. 2003.
- (2) Accreditation Canada. Reference Guide on Sentinel Events.
- (3) Report on the Quality Interagency Coordination Task Force to the President. Doing What Counts for Patient Safety: federal actions to reduce medical errors and their impact. United States. 2000.



## CLIENT SAFETY AS A STRATEGIC PRIORITY

**The organization adopts client safety as a written, strategic priority or goal.**

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### GUIDELINES

There is an important connection between organization excellence and safety. Ensuring safety in the provision and delivery of services is among an organization's primary responsibilities to clients, staff and providers. Accordingly, safety should be a formally written component of the organization's strategic objectives. This may be in the form of the strategic plan, the annual report, or list of organizational goals.

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### TESTS FOR COMPLIANCE

- Client safety appears as a written, strategic priority or goal.
- Resources are allocated to support the organization's implementation of the client safety strategic priority or goal.

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### REFERENCE MATERIAL

- (1) Health care criteria for performance excellence. Baldrige National Quality Program. 2009.
- (2) Krause et al. Taking the Lead in Patient Safety: How Healthcare Leaders Influence Behavior and Create Culture. John Wiley and Sons. 2008.



## CLIENT SAFETY QUARTERLY REPORTS

**The organization's leaders provide the governing body with quarterly reports on client safety, and include recommendations arising out of adverse incident investigation and follow-up, and improvements made.**

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### GUIDELINES

The board or governing body for each organization is ultimately accountable for the quality and safety of health services. Literature supports the important role of a governing body to enable an organizational culture that enhances client safety. An organization is more likely to make safety and quality improvement a central feature of health services if the governing body is aware of client safety issues and adverse events, and leads in the quality improvement efforts of the organization. In addition, the governing body needs to be informed about and have input into follow-up actions or improvement initiatives resulting from adverse events. Evidence is emerging that organizations with active board engagement in client safety are able to achieve improved outcomes and processes of care.

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### TESTS FOR COMPLIANCE

- Quarterly client safety reports have been provided to the governing body.
- The reports outline specific organizational activities and accomplishments in support of client safety goals and objectives.
- There is evidence of the governing body's involvement in supporting the activities and accomplishments, and acting on the recommendations in the quarterly reports.

---

### REFERENCE MATERIAL

- (1) Institute for Healthcare Improvement. Get Boards on Board. <http://www.ihl.org/IHI/Programs/Campaign/BoardsonBoard.htm>
- (2) Reinertsen, J et al. Seven Leadership Leverage Points for Organization-Level Improvement in Health Care. IHI Innovation Series. 2005. [http://www.improvingchroniccare.org/downloads/1.1\\_seven\\_leadership\\_leverage\\_points.pdf](http://www.improvingchroniccare.org/downloads/1.1_seven_leadership_leverage_points.pdf)
- (3) Jiang et al. Board oversight of quality: any differences in process of care and mortality? *J Healthcare Management*. Jan-Feb 2009;54(1):15-29



## CLIENT SAFETY-RELATED PROSPECTIVE ANALYSIS

**The organization carries out at least one client safety-related prospective analysis and implements appropriate improvements.**

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### GUIDELINES

Evidence shows that conducting systematic prospective analyses of potential adverse events is an effective method to prevent or reduce errors. The principle behind the reduction of such events is the elimination of unsafe actions and conditions that can lead to potentially serious events. A study by Nickerson applied Failure Modes and Effects Analysis (FMEA) to two high-risk situations, transcription of medication errors for inpatients, and overcrowding in the emergency department. Results showed a significant improvement.

There are numerous tools and techniques available to conduct a prospective analysis. One tool is FMEA, a team-based, systematic, and proactive approach that identifies the ways a process or design might fail, why it might fail, the effects of that failure, and how it can be made safer. Other methods to proactively analyze key processes include fault tree analysis, hazard analysis, simulations, and Reason's Errors of Omissions model.

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### TESTS FOR COMPLIANCE

- At least one prospective analysis has been completed within the past year.
- The organization uses information from the analysis to make improvements.

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### REFERENCE MATERIAL

- (1) Mistake-Proofing the Design of Healthcare Processes. AHRQ. U. S. Department of Health and Human Services. 2007. <http://www.ahrq.gov/qual/mistakeproof/mistakeproofing.pdf>
- (2) Nickerson T. Jenkins M. Greenall. Using ISMP Canada's framework for failure mode and effects analysis: a tale of two FMEAs. J. Healthcare Quarterly. 2008;11(3 Spec No.):40-6.
- (3) Laura M, Ponzeth C. FMEA: A model for reducing errors. Clinica Chimica Acta. 2009;pg.404.
- (4) Spath PL. Using failure mode and effects analysis to improve patient safety. AORN Journal. 2003;78(1):16-37; quiz 41-4.



Improve the effectiveness and coordination of communication among care and service providers and with the recipients of care and service across the continuum

## CLIENT AND FAMILY ROLE IN SAFETY

**The team informs and educates clients and families in writing and verbally about the client and family's role in promoting safety.**

---

### GUIDELINES

Clients and families play an important role in preventing adverse events. Their questions and comments are often a good source of information about potential risks, errors, or safety issues. Clients and families are able to fulfill this role when they are included and actively involved in the process of care.

Many organizations have developed materials that relate to client safety-related issues and provide guidance and direction for questions and topics to address during care. Examples of client safety educational materials include the Manitoba Institute of Patient Safety's "*It's Safe to Ask*," and the Ontario Hospital Association's "*Your Healthcare – Be Involved*."

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### TESTS FOR COMPLIANCE

- The team develops written and verbal information for clients and families about their role in promoting safety.
- The team provides written and verbal information to clients and families about their role in promoting safety.

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### REFERENCE MATERIAL

- (1) Institute of Medicine. *To Err is Human*. 1999.
- (2) Institute for Family Centered Care. *Partnering with Patients and Families for patient centered care*. 2008.
- (3) Entwistle, V, Mello, M, & Brennan, T. *Advising Patients About Patient Safety*. *Journal on Quality and Patient Safety*. 2005;31(9).



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## DANGEROUS ABBREVIATIONS

**The organization has identified and implemented a list of abbreviations, symbols, and dose designations that are not to be used in the organization.**

---

### GUIDELINES

Medication errors are the largest identified source of preventable hospital medical error. From 2004-2006, a total of 643,151 medication errors were reported to the United States Pharmacopeia (USP) MEDMARX program, with a total annual cost of \$3.5 billion. 5% of those errors were attributed to abbreviation use. Misinterpreted abbreviations can result in omission errors, extra or improper doses, administering the wrong drug, or giving a drug in the wrong manner. In return this can lead to an increase in the length of stay, more diagnostic tests and changes in drug treatment.

---

### TESTS FOR COMPLIANCE

- The list is inclusive of the abbreviations, symbols, and dose designations, as identified of the Institute of Safe Medication Practices (ISMP) Canada's "Do Not Use List", available at <http://www.ismp-canada.org/dangerousabbreviations.htm>.
- The organization implements the Do Not Use List and applies this to all medication-related documentation when hand written or entered as free text into a computer.
- The organization's preprinted forms, related to medication-use, do not include any abbreviations, symbols, and dose designations identified on the Do Not Use List.
- The dangerous abbreviations, symbols, and dose designations are not used on any pharmacy-generated labels and forms.
- The organization educates staff about the list at orientation and when changes are made to the list.
- The organization updates the list and implements necessary changes to the organization's processes.
- The organization audits compliance with the Do Not Use List and implements process changes based on identified issues.

---

### REFERENCE MATERIAL

- (1) Koczmar C, Jelincic V, Dueck C. Dangerous abbreviations: "U" can make a difference! Dynamics (Pembroke, ON). 2005;16(3):11-5.
- (2) Medication safety issue brief. Eliminating dangerous abbreviations, acronyms and symbols. Hosp Health Network. 2005; 79(6):41-2.



Improve the effectiveness and coordination of communication among care and service providers and with the recipients of care and service across the continuum

## INFORMATION TRANSFER

**The team transfers information effectively among service providers at transition points.**

---

### GUIDELINES

Effective communication has been identified as a critical element in improving client safety, particularly with regard to transition points such as shift changes, end of service, and client movement to other health services or community-based providers.

Effective communication includes transfer of information within the organization, between staff and service providers, with the client and family, and to other services outside the organization, such as primary care providers. Examples of mechanisms to ensure accurate transfer of information may include transfer forms and checklists.

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### TESTS FOR COMPLIANCE

- The team has established mechanisms for timely and accurate transfer of information at transition points.
- The team uses the established mechanisms to transfer information.

---

### REFERENCE MATERIAL

- (1) Alvarado K, et al. Transfer of accountability: Transforming shift handover to enhance patient safety. *Healthcare Quarterly*. 2006; 9: 75.
- (2) Kripalani, S, et al. Promoting effective transitions of care at hospital discharge: a review of key issues for hospitalists. *J Hospital Medicine*, 2007; 2: 314.
- (3) Patterson, E, et al. Beyond 'Communication Failure'. *Annals of Emergency Medicine*. 2009;53: 711.
- (4) Kripalani, S, et al. Deficits in Communication and Information Transfer between Hospital-Based and Primary Care Physicians: Implications for Patient Safety and Continuity of Care. *JAMA*. 2007;297: 831.



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## **MEDICATION RECONCILIATION AS AN ORGANIZATIONAL PRIORITY**

➔ *For Effective Organization and Leadership standards*

**The organization reconciles clients' medications at admission, and transfer or discharge.**

---

### **GUIDELINES**

Medication reconciliation is a structured process in which healthcare professionals partner with clients, families and caregivers for accurate and complete transfer of medication information at transitions of care. Medication reconciliation is complex and requires support from all levels of an organization, and many disciplines within the system.

Medication reconciliation is widely recognized as an important safety initiative. Research suggests that over 50% of patients have at least one medication discrepancy upon admission to hospital, with many discrepancies carrying the potential to cause adverse health effects. Evidence shows that medication reconciliation reduces the potential for medication discrepancies such as omissions, duplications, and dosing errors, while cost-effectiveness analyses have also demonstrated that medication reconciliation is an extremely cost-effective strategy for preventing medication errors. Additional research highlights that successful medication reconciliation can also reduce workload and rework associated with patient medication management.

In Canada, Safer Healthcare Now! identifies medication reconciliation as a safety priority. The World Health Organization (WHO) has also developed a Standard Operating Protocol for medication reconciliation as one of its interventions designed to enhance patient safety.

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### **TESTS FOR COMPLIANCE**

- Medication reconciliation is implemented in one client service area at admission.
- Medication reconciliation is implemented in one client service area at transfer or discharge.
- There is a documented plan to implement medication reconciliation throughout the organization.
- The plan includes locations and timelines for implementing medication reconciliation throughout the organization.

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Improve the effectiveness and coordination of communication among care and service providers and with the recipients of care and service across the continuum

Medication reconciliation as an organizational priority (cont'd)

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## REFERENCE MATERIAL

- (1) Institute for Healthcare Improvement. How To Guide: Prevent Adverse Drug Events. <<http://www.ihl.org/NR/rdonlyres/98096387-C903-4252-8276-5BFC181C0C7F/0/ADEHowtoGuide.doc>>
- (2) World Health Organization. High 5s - Action on Patient Safety Getting Started Kit. Assuring Medication Accuracy at Transitions of Care: Medication Reconciliation. <<http://www.who.int/patientsafety/solutions/high5s/en/index.html>>
- (3) Safer Healthcare Now! Getting Started Kit: Medication Reconciliation Prevention of Adverse Drug Events. <[http://www.saferhealthcarenow.ca/EN/Interventions/medrec\\_acute/Pages/gsk.aspx](http://www.saferhealthcarenow.ca/EN/Interventions/medrec_acute/Pages/gsk.aspx)>
- (4) Cornish PL, et al. Unintended medication discrepancies at the time of hospital admission. *Arch Intern Med.* 2005;165:424-429.
- (5) Vira T, et al. Reconcilable differences: correcting medication errors at hospital admission and discharge. *Qual Saf Healthcare.* 2006;000:1-6.
- (6) Pippins JR, et al. Classifying and predicting errors of inpatient medication reconciliation. *Journal of General Internal Medicine.* 2008;23:1414.
- (7) Kwan Y, et al. Pharmacist medication assessments in a surgical preadmission clinic. *Arch Internal Medicine.* 2007;167:1034-40.
- (8) Rozich JD, et al. Standardization as a mechanism to improve safety in healthcare: impact of sliding scale insulin protocol and reconciliation of medications initiatives. *Jt Comm J Qual Saf.* 2004;30(1):5-14.
- (9) Karnon J, et al. Model-based cost-effectiveness analysis of interventions aimed at preventing medication error at hospital admission (medicines reconciliation). *Journal of Evaluation in Clinical Practice.* 2009;15(2):299-306(8).
- (10) Karapinar-Carkit F, et al. Effect of medication reconciliation with and without patient counseling on the number of pharmaceutical interventions among patients discharged from the hospital. *Annals of Pharmacotherapy.* 2009;43:1001.



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## MEDICATION RECONCILIATION AT ADMISSION

- ➔ For standard sets other than *Ambulatory Care Services, Ambulatory Systemic Cancer Therapy Services, Case Management Services, Community-Based Mental Health Services and Supports, Effective Organization, Emergency Department, Home Care Services, and Leadership*

**The team reconciles the client’s medications upon admission to the organization, with the involvement of the client, family or caregiver.**

### GUIDELINES

Medication reconciliation is a structured process in which healthcare professionals partner with clients, families and caregivers for accurate and complete transfer of medication information at transitions of care.

The medication reconciliation process involves generating a comprehensive list of all medications the client has been taking prior to admission – the Best Possible Medication History (BPMH). The BPMH is compiled using a number of different sources, and includes information about prescription medications, non-prescription medications, vitamins, and supplements, along with detailed documentation of drug name, dose, frequency, and route of administration.

Medication reconciliation at admission generally fits into two models - the proactive process, the retroactive process, or a combination of the two:

- In the proactive process, the prescriber uses the BPMH to create admission medication orders. This process includes verification that every medication in the BPMH has been assessed by the prescriber.
- In the retroactive process, the BPMH is generated after the admission medication orders are written. This process requires a timely comparison of the BPMH against the admission medication orders, with any discrepancies identified and resolved with the prescriber.

Medication reconciliation is widely recognized as an important safety initiative. Evidence shows medication reconciliation reduces potential for medication discrepancies such as omissions, duplications, and dosing errors. In Canada, *Safer Healthcare Now!* identifies medication reconciliation as a safety priority. The World Health Organization (WHO) has also developed a Standard Operating Protocol for medication reconciliation as one of its interventions designed to enhance patient safety.

Medication reconciliation is a shared responsibility which must involve the client or family. Liaison with the primary care provider and community pharmacist may be required.

### TESTS FOR COMPLIANCE

- There is a demonstrated, formal process to reconcile client medications upon admission.
- The team generates a Best Possible Medication History (BPMH) for the client upon admission.
- Depending on the model, the prescriber uses the BPMH to create admission medication orders (proactive), **or**, the team makes a timely comparison of the BPMH against the admission medication orders (retroactive).
- The team documents that the BPMH and admission medication orders have been reconciled; and appropriate modifications to medications have been made where necessary.
- The process is a shared responsibility involving the client and one or more health care practitioner(s), such as nursing staff, medical staff, pharmacists, and pharmacy technicians, as appropriate.

(Cont'd on next page...)



Improve the effectiveness and coordination of communication among care and service providers and with the recipients of care and service across the continuum

Medication reconciliation at admission (cont'd)

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## REFERENCE MATERIAL

- (1) Institute for Healthcare Improvement. How To Guide: Prevent Adverse Drug Events. <<http://www.ihl.org/NR/rdonlyres/98096387-C903-4252-8276-5BFC181C0C7F/0/ADEHowtoGuide.doc>>
- (2) World Health Organization. High 5s - Action on Patient Safety Getting Started Kit. Assuring Medication Accuracy at Transitions of Care: Medication Reconciliation. <<http://www.who.int/patientsafety/solutions/high5s/en/index.html>>
- (3) Safer Healthcare Now! Getting Started Kit: Medication Reconciliation Prevention of Adverse Drug Events. <[http://www.saferhealthcarenow.ca/EN/Interventions/medrec\\_acute/Pages/gsk.aspx](http://www.saferhealthcarenow.ca/EN/Interventions/medrec_acute/Pages/gsk.aspx)>
- (4) Cornish PL, et al. Unintended medication discrepancies at the time of hospital admission. *Arch Intern Med.* 2005;165:424-429.
- (5) Vira T, et al. Reconcilable differences: correcting medication errors at hospital admission and discharge. *Qual Saf Healthcare.* 2006;000:1-6.
- (6) Pippins JR, et al. Classifying and predicting errors of inpatient medication reconciliation. *Journal of General Internal Medicine.* 2008;23:1414.
- (7) Kwan Y, et al. Pharmacist medication assessments in a surgical preadmission clinic. *Arch Internal Medicine.* 2007;167:1034-40.
- (8) Rozich JD, et al. Standardization as a mechanism to improve safety in healthcare: impact of sliding scale insulin protocol and reconciliation of medications initiatives. *Jt Comm J Qual Saf.* 2004;30(1):5-14.
- (9) Karnon J, et al. Model-based cost-effectiveness analysis of interventions aimed at preventing medication error at hospital admission (medicines reconciliation). *Journal of Evaluation in Clinical Practice.* 2009;15(2):299-306(8).
- (10) Karapinar-Carkit F, et al. Effect of medication reconciliation with and without patient counseling on the number of pharmaceutical interventions among patients discharged from the hospital. *Annals of Pharmacotherapy.* 2009;43:1001.



## MEDICATION RECONCILIATION AT ADMISSION

➔ For *Emergency Department standards*

**The team reconciles medications for clients with a decision to admit, with the involvement of the client, family or caregiver.**

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### GUIDELINES

Medication reconciliation is a structured process in which healthcare professionals partner with clients, families and caregivers for accurate and complete transfer of medication information at transitions of care.

The medication reconciliation process involves generating a comprehensive list of all medications the client has been taking prior to admission – the Best Possible Medication History (BPMH). The BPMH is compiled using a number of different sources, and includes information about prescription medications, non-prescription medications, vitamins, and supplements, along with detailed documentation of drug name, dose, frequency, and route of administration.

Medication reconciliation at admission generally fits into two models - the proactive process, the retroactive process, or a combination of the two:

- In the proactive process, the prescriber uses the BPMH to create admission medication orders. This process includes verification that every medication in the BPMH has been assessed by the prescriber.
- In the retroactive process, the BPMH is generated after the admission medication orders are written. This process requires a timely comparison of the BPMH against the admission medication orders, with any discrepancies identified and resolved with the prescriber.

Medication reconciliation is widely recognized as an important safety initiative. Evidence shows medication reconciliation reduces potential for medication discrepancies such as omissions, duplications, and dosing errors. In Canada, *Safer Healthcare Now!* identifies medication reconciliation as a safety priority. The World Health Organization (WHO) has also developed a Standard Operating Protocol for medication reconciliation as one of its interventions designed to enhance patient safety.

Medication reconciliation is a shared responsibility which must involve the client or family. Liaison with the primary care provider and community pharmacist may be required.

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Medication reconciliation at admission (cont'd)

## TESTS FOR COMPLIANCE

- There is a demonstrated, formal process to reconcile client medications for clients with a decision to admit.
- The team generates a Best Possible Medication History (BPMH) for clients with a decision to admit.
- Depending on the model, the prescriber uses the BPMH to create admission medication orders (proactive), **or**, the team makes a timely comparison of the BPMH against the admission medication orders (retroactive).
- The team documents that the BPMH and admission medication orders have been reconciled; and appropriate modifications to medications have been made where necessary.
- The process is a shared responsibility involving the client and one or more health care practitioner(s), such as nursing staff, medical staff, pharmacists, and pharmacy technicians, as appropriate.

## REFERENCE MATERIAL

- (1) Institute for Healthcare Improvement. How To Guide: Prevent Adverse Drug Events. <<http://www.ihl.org/NR/rdonlyres/98096387-C903-4252-8276-5BFC181C0C7F/0/ADEHowtoGuide.doc>>
- (2) World Health Organization. High 5s - Action on Patient Safety Getting Started Kit. Assuring Medication Accuracy at Transitions of Care: Medication Reconciliation. <<http://www.who.int/patientsafety/solutions/high5s/en/index.html>>
- (3) Safer Healthcare Now! Getting Started Kit: Medication Reconciliation Prevention of Adverse Drug Events. <[http://www.saferhealthcarenow.ca/EN/Interventions/medrec\\_acute/Pages/gsk.aspx](http://www.saferhealthcarenow.ca/EN/Interventions/medrec_acute/Pages/gsk.aspx)>
- (4) Cornish PL, et al. Unintended medication discrepancies at the time of hospital admission. *Arch Intern Med.* 2005;165:424-429.
- (5) Vira T, et al. Reconcilable differences: correcting medication errors at hospital admission and discharge. *Qual Saf Healthcare.* 2006;000:1-6.
- (6) Pippins JR, et al. Classifying and predicting errors of inpatient medication reconciliation. *Journal of General Internal Medicine.* 2008;23:1414.
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- (10) Karapinar-Carkit F, et al. Effect of medication reconciliation with and without patient counseling on the number of pharmaceutical interventions among patients discharged from the hospital. *Annals of Pharmacotherapy.* 2009;43:1001.



Improve the effectiveness and coordination of communication among care and service providers and with the recipients of care and service across the continuum

## MEDICATION RECONCILIATION AT ADMISSION

➔ For Ambulatory Care Services and Ambulatory Systemic Cancer Therapy Services

**The team reconciles the client's medications with the involvement of the client, family or caregiver at the beginning of service when medication therapy is a significant component of care. Reconciliation should be repeated periodically as appropriate for the client or population receiving services.**

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### GUIDELINES

Medication reconciliation is a structured process in which healthcare professionals partner with clients, families and caregivers for accurate and complete transfer of medication information at transitions of care.

The medication reconciliation process involves generating a comprehensive list of all medications the client has been taking prior to a visit – the Best Possible Medication History (BPMH). The BPMH is compiled using a number of different sources, and includes information about prescription medications, non-prescription medications, vitamins, and supplements, along with detailed documentation of drug name, dose, frequency, and route of administration. Any discrepancies identified between what the client is prescribed, and what they are actually taking, will be resolved at the clinic or referred to their provider of care (e.g. family physician).

Medication reconciliation is widely recognized as an important safety initiative. Evidence shows medication reconciliation reduces potential for medication discrepancies such as omissions, duplications, and dosing errors. In Canada, Safer Healthcare Now! identifies medication reconciliation as a safety priority. The World Health Organization (WHO) has also developed a Standard Operating Protocol for medication reconciliation as one of its interventions designed to enhance patient safety.

Medication reconciliation is a shared responsibility which must involve the client or family. Liaison with the primary care provider and community pharmacist may be required.

Due to the wide range of service offerings and client populations receiving care in ambulatory clinics, teams are encouraged to establish appropriate target populations to receive formal medication reconciliation. Medication reconciliation should focus on clients for whom medication therapy is a significant component of care. A screening or risk assessment approach may be adopted, and should consider: i) the client's needs, ii) the type of clinic, and iii) the service offerings of the clinic.

NOTE: Documented rationale for the selection of target clients or populations, as well as the appropriate interval of reconciliation for these clients or populations, must be provided.

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Medication reconciliation at admission (cont'd)

## TESTS FOR COMPLIANCE

- The team provides documented rationale for the selection of target clients or populations to receive formal medication reconciliation.
- There is a demonstrated, formal process to reconcile client medications at the beginning of service, and periodically as appropriate for the client or population receiving services.
- The team generates or updates a comprehensive list of medications the client has been taking prior to the beginning of services (Best Possible Medication History (BPMH)).
- The team documents any changes to the medications list (i.e. medications that have been discontinued, altered, or prescribed),
- The team provides clients and their providers of care (e.g. family physician) with a copy of the BPMH and clear information about the changes.
- An up-to-date medications list is retained in the client record.
- The process is a shared responsibility involving the client and one or more health care practitioner(s), such as nursing staff, medical staff, pharmacists, and pharmacy technicians, as appropriate.

## REFERENCE MATERIAL

- (1) Institute for Healthcare Improvement. How To Guide: Prevent Adverse Drug Events. <<http://www.ihl.org/NR/rdonlyres/98096387-C903-4252-8276-5BFC181C0C7F/0/ADEHowtoGuide.doc>>
- (2) World Health Organization. High 5s - Action on Patient Safety Getting Started Kit. Assuring Medication Accuracy at Transitions of Care: Medication Reconciliation. <<http://www.who.int/patientsafety/solutions/high5s/en/index.html>>
- (3) Safer Healthcare Now! Getting Started Kit: Medication Reconciliation Prevention of Adverse Drug Events. <[http://www.saferhealthcarenow.ca/EN/Interventions/medrec\\_acute/Pages/gsk.aspx](http://www.saferhealthcarenow.ca/EN/Interventions/medrec_acute/Pages/gsk.aspx)>
- (4) Cornish PL, et al. Unintended medication discrepancies at the time of hospital admission. *Arch Intern Med.* 2005; 165:424-429.
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- (8) Rozich JD, et al. Standardization as a mechanism to improve safety in healthcare: impact of sliding scale insulin protocol and reconciliation of medications initiatives. *Jt Comm J Qual Saf.* 2004;30(1):5-14.
- (9) Karnon J, et al. Model-based cost-effectiveness analysis of interventions aimed at preventing medication error at hospital admission (medicines reconciliation). *Journal of Evaluation in Clinical Practice.* 2009;15(2):299-306(8).
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## MEDICATION RECONCILIATION AT ADMISSION

➔ For Case Management Services, Community-Based Mental Health Services and Supports, and Home Care Services

**The team reconciles the client's medication at the beginning of service with the involvement of the client and family or caregiver when medication management is a component of care.**

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### GUIDELINES

Medication reconciliation is a structured process in which healthcare professionals partner with clients, families and caregivers for accurate and complete transfer of medication information at transitions of care.

The medication reconciliation process involves generating a comprehensive list of all medications the client has been taking prior to the beginning of service – the Best Possible Medication History (BPMH). The BPMH is compiled using a number of different sources, and includes information about prescription medications, non-prescription medications, vitamins, and supplements, along with detailed documentation of drug name, dose, frequency, and route of administration.

Medication reconciliation is widely recognized as an important safety initiative. Evidence shows medication reconciliation reduces potential for medication discrepancies such as omissions, duplications, and dosing errors. In Canada, *Safer Healthcare Now!* identifies medication reconciliation as a safety priority. The World Health Organization (WHO) has also developed a Standard Operating Protocol for medication reconciliation as one of its interventions designed to enhance patient safety.

Medication reconciliation is a shared responsibility which must involve the client or family. Liaison with the primary care provider and community pharmacist may be required.

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### TESTS FOR COMPLIANCE

- There is a demonstrated, formal process to reconcile client medications at each visit if medications have been discontinued, altered or changed.
- The team generates a Best Possible Medication History (BPMH) at the beginning of service when medication management is a component of care.
- The team conducts a timely comparison of the BPMH with medications prescribed, ordered, dispensed, or administered during service.
- The team communicates the BPMH and discrepancies requiring resolution to the appropriate health care provider, and documents actions taken in the client record.
- The process is a shared responsibility involving the client and one or more health care practitioner(s), such as nursing staff, medical staff, pharmacists, and pharmacy technicians, as appropriate.

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Medication reconciliation at admission (cont'd)

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## REFERENCE MATERIAL

- (1) Institute for Healthcare Improvement. How To Guide: Prevent Adverse Drug Events. <<http://www.ihl.org/NR/rdonlyres/98096387-C903-4252-8276-5BFC181C0C7F/0/ADEHowtoGuide.doc>>
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- (6) Pippins JR, et al. Classifying and predicting errors of inpatient medication reconciliation. *Journal of General Internal Medicine.* 2008;23:1414.
- (7) Kwan Y, et al. Pharmacist medication assessments in a surgical preadmission clinic. *Arch Internal Medicine.* 2007;167:1034-40.
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## **MEDICATION RECONCILIATION AT TRANSFER OR DISCHARGE**

*(formerly Medication reconciliation at referral or transfer)*

- ➔ For teams using *Ambulatory Care Services, Ambulatory Systemic Cancer Therapy Services, Case Management Services, Community-Based Mental Health Services and Supports, and Home Care Services*

**The team reconciles medications with the client at referral or transfer, and communicates information about the client's medication to the next provider of service at referral or transfer to another setting, service, service provider, or level of care within or outside the organization.**

NOTE: This ROP has not changed from previous versions. Revised versions for the teams indicated are being developed for 2012.

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### **GUIDELINES**

Medication reconciliation is a way to collect and communicate accurate information about client medication, including over-the-counter medications, vitamins, and supplements. Evidence shows medication reconciliation can lead to reduced medication discrepancies on admission such as omissions, duplications, and dosing errors, and a reduction in discrepancies in drug frequency and dose at the time of discharge.

Medication reconciliation is a widely recognized as an important safety initiative. In Canada, Safer Healthcare Now! identifies medication reconciliation as a safety priority. The World Health Organization (WHO) has also developed a Standard Operating Protocol for medication reconciliation as one of its interventions designed to enhance patient safety.

Medication reconciliation is a shared responsibility which must involve the client or family. Liaison with the primary care provider and community pharmacist may be required.

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### **TESTS FOR COMPLIANCE**

- There is a demonstrated, formal process to reconcile client medications at referral or transfer.
- The process includes generating a comprehensive list of all medications the client has been taking prior to referral or transfer.
- The process includes a timely comparison of the prior-to-referral or prior-to-transfer medication list with the list of new medications ordered at referral or transfer.
- The process requires documentation that the two lists have been compared; differences have been identified, discussed, and resolved; and appropriate modifications to the new medications have been made.
- The process makes it clear that medication reconciliation is a shared responsibility involving the client, nursing staff, medical staff and pharmacists, as appropriate.

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Medication reconciliation at transfer or discharge (cont'd)

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## REFERENCE MATERIAL

- (1) Institute for Healthcare Improvement. How To Guide: Prevent Adverse Drug Events. <http://www.ihl.org/NR/rdonlyres/98096387-C903-4252-8276-5BFC181C0C7F/0/ADEHowtoGuide.doc>
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- (6) World Health Organization. Action on Patient Safety – High 5s. Assuring Medication Accuracy at Transitions of Care. <http://www.who.int/patientsafety/solutions/high5s/en/index.html>
- (7) Karapinar-Carkit, F, et al. Effect of medication reconciliation with and without patient counselling on the number of pharmaceutical interventions among patients discharged from the hospital. *Annals of Pharmacotherapy*. 2009;43: 1001.



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## **MEDICATION RECONCILIATION AT TRANSFER OR DISCHARGE**

*(formerly Medication reconciliation at referral or transfer)*

- ➔ For teams using *Acquired Brain Injury Services, Cancer Care and Oncology Services, Critical Care Services, Emergency Departments, Hospice, Palliative, End-of-Life Care Services, Medicine Services, Mental Health Services, Obstetrics/Perinatal Care Services, Obstetrics Services, Rehabilitation Services, Substance Abuse and Problem Gambling Services, and Surgical Care Services*

**The team reconciles the client's medications with the involvement of the client, family or caregiver at transition points where medication orders are changed or rewritten (i.e. internal transfer, and/or discharge).**

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### **GUIDELINES**

Medication reconciliation is a structured process in which healthcare professionals partner with clients, families and caregivers for accurate and complete transfer of medication information at transitions of care. The 'Medication Reconciliation at Transfer or Discharge ROP' is designed to complement Accreditation Canada's 'Medication Reconciliation at Admission ROPs'.

The medication reconciliation process involves generating a comprehensive list of all medications the client has been taking prior to admission – the Best Possible Medication History (BPMH). The BPMH is compiled using a number of different sources, and includes information about prescription medications, non-prescription medications, vitamins, herbal remedies, and supplements, along with detailed documentation of drug name, dose, frequency, and route of administration.

Throughout a client's health care journey, the BPMH serves as an important reference for reconciling medications at transitions of care. In instances where a client has been in a service environment for an extended period and did not receive a BPMH upon admission, the up-to-date, complete medication list may be used as a BPMH (the period of time should be determined by organizational policy). In these instances, every effort should be made to account for medications the patient may have been taking prior to admission that may not be included on the up-to-date medication list.

#### **INTERNAL TRANSFER**

Internal transfer is defined as an interface of care within a facility where medication orders are changed or rewritten. Internal transfers where medication reconciliation should occur include a change in responsible medical service, a change in level of care, post-operatively, and/or transfer between units when one of the previous three conditions is present. Bed relocation or transitions of care where the responsible health care provider does not change should not be considered an internal transfer for the purpose of medication reconciliation.

The goal of medication reconciliation at internal transfer is to consider not only what the patient was receiving on the transferring/sending unit, but also medications they were taking at home that may be appropriate to continue, restart, discontinue, or modify.

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Medication reconciliation at transfer or discharge (cont'd)

### **DISCHARGE**

Discharge is defined as a critical interface of care where clients are at risk of medication discrepancies as they transition out of a facility. Discharge includes external transfers to another service environment or community-based service provider, or the end of service. Examples may include but are not limited to acute care to long term care, acute care to home care, acute care to rehab, and acute care to self-care.

The goal of discharge medication reconciliation is to reconcile the medications the patient was taking prior to admission, and those initiated in hospital, with the medications they should be taking post-discharge.

Medication reconciliation at internal transfer and discharge generally fits into two models – the proactive process or the retroactive process.

- In the proactive process, the prescriber uses the BPMH and the active medication orders to generate transfer or discharge medication orders. This process includes verification that every medication in the BPMH has been assessed by the prescriber.
- In the retroactive process, the team makes a timely comparison of the BPMH, the active medication orders, and the transfer or discharge medication orders to identify discrepancies and resolve with the prescriber.

At discharge, this information should be used to generate a Best Possible Medication Discharge Plan (BPMDP). The BPMDP includes all detailed medication information outlined in the BPMH description above, and should be communicated to the client and/or caregiver, community-based physician or service, community pharmacy, and alternative care facility or service, as appropriate.

NOTE: For emergency departments, medication reconciliation at internal transfer or discharge is only expected for patients who have been admitted.

Medication reconciliation is a widely recognized as an important safety initiative. In Canada, Safer Healthcare Now! identifies medication reconciliation as a safety priority. The Institute for Safe Medication Practices Canada has developed a Standard Operating Protocol for medication reconciliation which has been endorsed by the World Health Organization as one of its interventions designed to enhance patient safety.

Medication reconciliation is a shared responsibility which must involve the client or family. Liaison with the primary care provider and community pharmacist may be required.

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Medication reconciliation at transfer or discharge (cont'd)

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### TESTS FOR COMPLIANCE:

- There is a demonstrated, formal process to reconcile client medications at transition points where medication orders are changed or rewritten (i.e. internal transfer, and/or discharge).
- Depending on the model, the prescriber uses the Best Possible Medication History (BPMH) and the active medication orders to generate transfer or discharge medication orders (proactive), OR, the team makes a timely comparison of the BPMH, the active medication orders, and the transfer or discharge medication orders (retroactive).
- The team documents that the BPMH, the active medication orders, and the transfer or discharge medication orders have been reconciled; and appropriate modifications to medications have been made where necessary.
- Depending on the transition point, an up-to-date medication list is retained in the client record (internal transfer), **or**, the team generates a Best Possible Medication Discharge Plan (BPMDP) that is communicated to the client, community-based physician or service provider, and community pharmacy, as appropriate (discharge).
- The process is a shared responsibility involving the client or family, and one or more health care practitioner(s), such as nursing staff, medical staff, and pharmacy staff, as appropriate.

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### REFERENCE MATERIAL

- (1) Institute for Healthcare Improvement. How To Guide: Prevent Adverse Drug Events. <http://www.ihl.org/NR/rdonlyres/98096387-C903-4252-8276-5BFC181C0C7F/0/ADEHowtoGuide.doc>
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- (3) Wong, J, et al. Medication reconciliation at hospital discharge: evaluating discrepancies. *Annals of Pharmacotherapy*. 2008;42: 1373.
- (4) Vira, T, et al. Reconcilable differences: correcting medication errors at hospital admission and discharge. *Quality and Safety in Health Care*. 2006;15: 122.
- (5) Safer Healthcare Now! Getting Started Kit. [http://www.saferhealthcarenow.ca/EN/Interventions/medrec\\_acute/Pages/gsk.aspx](http://www.saferhealthcarenow.ca/EN/Interventions/medrec_acute/Pages/gsk.aspx)
- (6) World Health Organization. Action on Patient Safety – High 5s. Assuring Medication Accuracy at Transitions of Care. <http://www.who.int/patientsafety/solutions/high5s/en/index.html>
- (7) Karapinar-Carkit, F, et al. Effect of medication reconciliation with and without patient counselling on the number of pharmaceutical interventions among patients discharged from the hospital. *Annals of Pharmacotherapy*. 2009;43: 1001.



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## **MEDICATION RECONCILIATION AT TRANSFER OR DISCHARGE**

*(formerly Medication reconciliation at referral or transfer)*

➔ For teams using *Long Term Care Services*

**The team reconciles the client's medications with the involvement of the client, family or caregiver at transition points where medication orders are changed or rewritten (i.e. internal transfer, and/or discharge).**

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### **GUIDELINES**

Medication reconciliation is a structured process in which healthcare professionals partner with clients, families and caregivers for accurate and complete transfer of medication information at transitions of care. The 'Medication Reconciliation at Transfer or Discharge ROP' is designed to complement Accreditation Canada's 'Medication Reconciliation at Admission ROPs'.

The medication reconciliation process involves generating a comprehensive list of all medications the client has been taking prior to admission – the Best Possible Medication History (BPMH). The BPMH is compiled using a number of different sources, and includes information about prescription medications, non-prescription medications, vitamins, herbal remedies, and supplements, along with detailed documentation of drug name, dose, frequency, and route of administration.

Throughout a client's health care journey, the BPMH serves as an important reference for reconciling medications at transitions of care. For clients that have been in a service environment for an extended period of time, the up-to-date, complete medication list will become the BPMH.

#### **INTERNAL TRANSFER**

Internal transfer is defined as an interface of care within a facility where medication orders are changed or rewritten. Internal transfers where medication reconciliation should occur include a change in responsible medical service, a change in level of care, and/or transfer between units when one of the previous two conditions is present. Bed relocation or transitions of care where the responsible health care provider does not change should not be considered an internal transfer for the purpose of medication reconciliation.

The goal of medication reconciliation at internal transfer is to ensure that all medication orders are completely and accurately transferred with the client, and that any discrepancies with the medication list are intentional. The process should involve a comparison of: i) the most current medication list; and ii) the new transfer orders, to identify and resolve discrepancies.

#### **DISCHARGE**

Discharge is defined as a critical interface of care where clients are at risk of medication discrepancies as they transition out of a facility. Discharge includes external transfers to another service environment or community-based service provider, or the end of service. Examples may include but are not limited to long term care to acute care, long term care to self-care, and between long term care facilities.

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Medication reconciliation at transfer or discharge (cont'd)

The goal of medication reconciliation at discharge is to communicate a complete list of medications to the next provider of care. The process should involve a comparison of: i) the BPMH/most current medication list; and ii) recent changes including newly initiated medications, adjusted doses, and discontinued medications.

In long term care settings, medication reconciliation at internal transfer and discharge provides an opportunity to review the treatment goal and expected duration of therapy for medications to ensure that continued use is appropriate.

Medication reconciliation is a widely recognized as an important safety initiative. In Canada, Safer Healthcare Now! identifies medication reconciliation as a safety priority. The Institute for Safe Medication Practices Canada has developed a Standard Operating Protocol for medication reconciliation which has been endorsed by the World Health Organization as one of its interventions designed to enhance patient safety.

Medication reconciliation is a shared responsibility which must involve the client or family. Liaison with the primary care provider and community pharmacist may be required.

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## TESTS FOR COMPLIANCE

- There is a demonstrated, formal process to reconcile client medications at transition points where medication orders are changed or rewritten (i.e. internal transfer, and/or discharge).
- The team makes a timely comparison of the up-to-date, complete medication list, and new medication orders or recent changes.
- The team documents that the up-to-date, complete medication list and new medication orders or recent changes have been reconciled; and appropriate modifications to medications have been made where necessary.
- Depending on the transition point, an up-to-date medication list is retained in the client record (internal transfer), **or**, the up-to-date medication list is communicated to the next provider of care (discharge).
- The process is a shared responsibility involving the client or family, and one or more health care practitioner(s), such as nursing staff, medical staff, and pharmacy staff, as appropriate.

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## REFERENCE MATERIAL

- (1) Institute for Healthcare Improvement. How To Guide: Prevent Adverse Drug Events. <http://www.ihl.org/NR/rdonlyres/98096387-C903-4252-8276-5BFC181C0C7F/0/ADEHowtoGuide.doc>
- (2) Pippins, J, et al. Classifying and predicting errors of inpatient medication reconciliation. *Journal of General Internal Medicine*. 2008; 23: 1414.
- (3) Wong, J, et al. Medication reconciliation at hospital discharge: evaluating discrepancies. *Annals of Pharmacotherapy*. 2008;42: 1373.
- (4) Vira, T, et al. Reconcilable differences: correcting medication errors at hospital admission and discharge. *Quality and Safety in Health Care*. 2006;15: 122.
- (5) Safer Healthcare Now! Getting Started Kit. [http://www.saferhealthcarenow.ca/EN/Interventions/medrec\\_acute/Pages/gsk.aspx](http://www.saferhealthcarenow.ca/EN/Interventions/medrec_acute/Pages/gsk.aspx)
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- (7) Karapinar-Carkit, F, et al. Effect of medication reconciliation with and without patient counselling on the number of pharmaceutical interventions among patients discharged from the hospital. *Annals of Pharmacotherapy*. 2009;43: 1001.



## SAFE SURGERY CHECKLIST

**The team uses a safe surgery checklist to confirm safety steps are completed for a surgical procedure.**

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### GUIDELINES

Surgical checklists play an important role in the provision of effective and safe surgery. Evidence demonstrates the use of surgical checklists reduces likelihood of complications following surgery, and may improve surgical outcomes.

The purpose of a surgical checklist is to initiate, guide, and formalize communication among the team members conducting a surgical procedure and to integrate these steps into surgical workflow.

Surgical procedures are increasingly complex aspects of health services, and represent significant risk of potentially avoidable harm. Data show substantial cost savings if surgical checklists are widely used. Semel et al estimate savings in the USA of 15-25 billion.

Surgical checklists have been developed by and are available from Canadian (Canadian Patient Safety Institute) and international (World Health Organization) sources. Each checklist has three-phases:

- i. Briefing – before the induction of anesthesia
- ii. Time out – before skin incision
- iii. Debriefing – before the patient leaves the OR

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### TESTS FOR COMPLIANCE

- The team has agreed on a three-phase checklist to be used in the operating room.
- The team uses the checklist for every surgical procedure in the operating room.
- The team has developed a process for ongoing monitoring of compliance with the checklist.
- The team evaluates the use of the checklist and shares results with staff and service providers.
- The team uses results of the evaluation to improve the implementation of and expand the use of the checklist.

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### REFERENCE MATERIAL

- (1) Panesar, S., et al (2009) The WHO checklist: a global tool to prevent errors in surgery. *Patient Safety in Surgery*, 3: 9.
- (2) Haynes, A., et al (2009) A surgical safety checklist to reduce morbidity and mortality in a global population. *New England Journal of Medicine*, 360: 491-499.
- (3) Implementation manual WHO surgical safety checklist 2009. *Safe Surgery Saves Lives*. World Health Organization. 2009.
- (4) Semel, M., et al (2008) Estimation of direct cost saving from WHO surgical safety checklist implementation in the United States. Accessed at [www.safesurg.org](http://www.safesurg.org)
- (5) Canadian Patient Safety Institute. Surgical Safety Checklist. <http://www.patientsafetyinstitute.ca/English/toolsResources/sssl/Pages/SurgicalSafetyChecklist.aspx>



## TWO CLIENT IDENTIFIERS

➔ For teams using standards other than *Managing Medications*

**The team uses at least two client identifiers before providing any service or procedure.**

### GUIDELINES

Failure to correctly identify clients may result in a range of adverse events such as medication errors, transfusion errors, testing errors, wrong person procedures, and the discharge of infants to the wrong families. Client misidentification was identified in more than 100 individual root cause analyses by the US Department of Veterans Affairs National Center for Patient Safety from January 2000 to March 2003. The UK National Patient Safety Agency reported 236 incidents and near misses related to missing wristbands or wristbands with incorrect information between 2003 and 2005. Evidence has shown decreases in client identification errors when revised client identification systems are used.

The team uses means of identification that are appropriate to the type of services provided and population served. The information obtained needs to be specific to the client, and examples include person-specific identification number such as a registration number; client identification cards such as the health card with name, address, date of birth; client barcodes; double witnessing; or a client wristband. Two client identifiers may be taken from a single source, such as the client wristband. The client's room number is not to be used as a client identifier.

### TESTS FOR COMPLIANCE

- The team uses at least two client identifiers before providing any service or procedure.

### REFERENCE

- (1) Jensen NJ, Crosson JT. An automated system for bedside verification of the match between patient identification and blood unit identification. *Transfusion*. 1996;36(3):216-21.
- (2) WHO Collaborating Centre for Patient Safety Solutions. Patient Identification. Patient Safety Solutions. Volume 1, solution 2, May 2007.
- (3) Technology Solutions to Patient Misidentification Report of Review. Australian Commission on Safety and Quality in Healthcare. October 2008.
- (4) Sandler SG, Langeberg A, Dohnalek L. Bar code technology improves positive patient identification and transfusion safety. *Developments in Biologicals*. 2005;120:19-24.
- (5) Parisi LL. Patient identification: the foundation for a culture of patient safety. *Journal of Nursing Care Quality*. 2003;18(1):73-9.



## TWO CLIENT IDENTIFIERS

➔ For *Managing Medications standards*

**The team uses at least two client identifiers before administering medications.**

### GUIDELINES

Failure to correctly identify clients may result in a range of adverse events such as medication errors, transfusion errors, testing errors, wrong person procedures, and the discharge of infants to the wrong families. Client misidentification was identified in more than 100 individual root cause analyses by the US Department of Veterans Affairs National Center for Patient Safety from January 2000 to March 2003. The UK National Patient Safety Agency reported 236 incidents and near misses related to missing wristbands or wristbands with incorrect information between 2003 and 2005. Evidence has shown decreases in client identification errors when using revised client identification systems.

The team uses means of identification that are appropriate to the type of services provided and population served. The information obtained needs to be specific to the client, and examples include person-specific identification number (e.g. registration number), client identification cards (e.g. health card with name, address, date of birth), client barcodes, double witnessing, or a client wristband. Two client identifiers may be taken from a single source, such as client wristband. The client's room number is not to be used as a client identifier.

### TESTS FOR COMPLIANCE

- The team uses at least two client identifiers before administering medications.

### REFERENCE MATERIAL

- (1) Jensen NJ, Crosson JT. An automated system for bedside verification of the match between patient identification and blood unit identification. *Transfusion*. 1996;36(3):216-21.
- (2) WHO Collaborating Centre for Patient Safety Solutions. Patient Identification. Patient Safety Solutions. Volume 1, solution 2, May 2007.
- (3) Technology Solutions to Patient Misidentification Report of Review. Australian Commission on Safety and Quality in Healthcare. October 2008.
- (4) Sandler SG, Langeberg A, Dohnalek L. Bar code technology improves positive patient identification and transfusion safety. *Developments in Biologicals*. 2005;120:19-24.
- (5) Parisi LL. Patient identification: the foundation for a culture of patient safety. *Journal of Nursing Care Quality*. 2003;18(1):73-9.



## VERIFICATION PROCESSES FOR HIGH-RISK ACTIVITIES

**The team implements verification processes and other checking systems for high-risk activities.**

### GUIDELINES

Processes and checking systems for high-risk care or service activities are important to client safety. To identify high-risk activities the team reviews their services and uses this information to develop and implement checking systems to prevent and reduce risk of harm to clients.

Across the care continuum, systems will vary depending on services. Examples may include but are not limited to:

- Safe surgery checklists and procedural pauses
- Repeat back or read back processes for diagnostics or verbal orders
- Checking systems for water temperature for client bathing
- Standardized tracking sheets for clients with complex medication management needs
- Automated alert systems for communication of critical test results
- Computer-generated reminders for follow-up testing in high-risk patients
- Two person verification process for blood transfusions
- Critical interventions related to drug orders
- Independent double checks for the dispensing/administration of high-risk medications
- Medication bar coding systems for drug dispensing, labeling, and administration
- Decision support software for order entry and/or drug interaction checking
- Safety monitoring systems for service providers in community-based organizations, or for clients in high-risk environments
- Standardized protocols for the monitoring of fetal heart rate during medical induction/augmentation of labour, or in high-risk deliveries
- System for monitoring of vaccine fridge temperatures
- Standardized protocols for the use of restraints
- Standardized screening processes for allergies to contrast media

### TESTS FOR COMPLIANCE

- The team identifies high-risk activities.
- The team develops and implements verification processes for high-risk activities.
- The team evaluates the verification processes and uses information to make improvements.

### REFERENCE MATERIAL

- (1) Easty, A., Moser, J., Trip, K., Hyland, S., Savage, P., Cafazzo, J., & White, R. (2008). *Checking it twice: Developing and implementing an effective method for independent-double checking of highrisk clinical procedures*. Available from the Canadian Patient Safety Institute website: <http://www.patientsafetyinstitute.ca/English/research/psiResearchCompetitions/2005/Pages/Easty.aspx>.
- (2) Grissinger, M. (2006). The virtues of independent double-checks: They really are worth your time! *P&T*, 31, 492. Retrieved from <http://www.ptcommunity.com/ptJournal/fulltext/31/9/PTJ3109492.pdf>.



## CONCENTRATED ELECTROLYTES

**The organization removes concentrated electrolytes (including, but not limited to, potassium chloride, potassium phosphate, sodium chloride >0.9%) from client service areas.**

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### GUIDELINES

Concentrated electrolytes are high-risk medications and should not be stored in client service areas. Removal of concentrated electrolyte solutions from client care units reduces risk of death or disabling injury associated with these agents.

Concentrated potassium chloride in particular has been identified as a high-risk medication. In Canada, 23 incidents involving potassium chloride mis-administration occurred between 1993 and 1996. There are also reports of accidental death from the inadvertent administration of concentrated saline solution.

The organization identifies concentrated electrolytes to be removed from client care areas, and ensures the policy is followed.

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### TESTS FOR COMPLIANCE

- There are no concentrated electrolytes stored in client service areas.

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### REFERENCE MATERIAL

- (1) Control of Concentrated Electrolyte Solutions. WHO Collaborating Centre for Patient Safety Solutions. 2007. 1(5).
- (2) ISMP Canada Safety Bulletin. Concentrated Potassium Chloride: A Recurring Danger. 2004. Volume 4, Issue 3.
- (3) Medication error prevention—potassium chloride. Joint Commission. Sentinel Event Alert, Issue 1, 27. 1998.
- (4) Alert on potassium chloride solutions. National Patient Safety Agency (United Kingdom). 2003.
- (5) DiPaulo M. Accidental death due to erroneous intravenous infusion of hypertonic saline solution for hemodialysis. *International Journal of Artificial Organs*. 2004; 27(9):810–812.



## HEPARIN SAFETY

**The organization evaluates and limits the availability of heparin products and has removed high-dose formats.**

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### GUIDELINES

Heparin is identified as a high alert medication that is an area of focus for safety. More than 17,000 heparin-related medication errors were reported to the U.S. Pharmacopeia (USP) MEDMARX from 2003 to 2007; 556 of these resulted in harm to clients, including seven deaths.

Implementation of safety recommendations and other measures can help to improve safety and heparin therapy.

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### TESTS FOR COMPLIANCE

- The organization has completed an audit of unfractionated and low molecular weight heparin storage in the pharmacy and in all patient care areas.
- The audit includes a review of products and quantities stored; assessment of the intended use for each heparin product stored (alignment with evidence-based guidelines); and identification of unnecessary products to be removed.
- The organization has removed high-dose formats of unfractionated heparin products (50,000 unit total drug quantity) from patient care areas, ie. 10,000 units/mL in 5 mL vials and 25,000 units/mL in 2 mL vials.
- The organization has reviewed and reduced, where possible, availability of the following unfractionated heparin products in patient care areas, ie. 10,000 units/mL in 1 mL vials and 1,000 units/mL in 10 mL vials.

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### REFERENCE MATERIAL

- (1) ISMP Canada Safety Bulletin. Enhancing Safety with Unfractionated Heparin: A National and International Area of Focus. 2008. Volume 8, Issue 5.
- (2) ISMP List of High Alert Medications. <http://www.ismp.org/Tools/highalertmedications.pdf>
- (3) Santell, J. USP Medmarx data 1/1/2003-12/31/2007. Improving Heparin Safety. San Diego, CA, March 13, 2008.



## INFUSION PUMPS TRAINING

**The organization provides ongoing, effective training for service providers on all infusion pumps.**

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### GUIDELINES

The more types of infusion pumps there are within an organization, the more chance there is for serious error. To minimize risk staff and service providers receive ongoing, effective training on infusion pumps, covering client clinical needs, staff competency, staff continuity, infusion pump technology, and the location of the pumps (e.g. hospital, community, home). This training is particularly important given that many service providers often work at more than one health service organization, meaning they need to be competent in using many different types of infusion pumps.

Organizations are also encouraged to standardize infusion pumps to the greatest possible extent.

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### TESTS FOR COMPLIANCE

- There is documented evidence of ongoing, effective training on infusion pumps.

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### REFERENCE MATERIAL

- (1) Bjorn B, Garde K, Pedersen BL. Infusion pumps and patient safety. *Ugeskrift for Laeger*. 2007;169(4):315-8. (Abstract in English)
- (2) ISMP Canada Safety Bulletin. Infusion Pump Project: Survey Results and Time for Action. 2004. Volume 4, issue 1.
- (3) Scroggs, J. Improving patient safety using clinical needs assessments in IV therapy. *British Journal of Nursing*. 2008; 17: S22.



## MEDICATION CONCENTRATIONS

The organization standardizes and limits the number of medication concentrations available.

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### GUIDELINES

Having multiple concentrations or strengths of the same medication available increases the risk that clinicians will select, dispense, or administer the wrong concentration. Standardizing medication concentrations across the organization and limiting strengths to as few as possible reduces chances for error.

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### TESTS FOR COMPLIANCE

- Medication concentrations are standardized and limited across the organization.

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### REFERENCE MATERIAL

- (1) Shlom, EA, Sondra K. Managing High-Risk Medications: Implementing Medication Management Standard 7.10 Pharmacy Practice. Hospital Pharmacy. 2006;41(5):470,472-476,488.



## NARCOTICS SAFETY

**The organization evaluates and limits the availability of narcotic (opioid) products and removes high-dose, high-potency formats from patient care areas.**

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### GUIDELINES

Narcotics are identified as high alert medications that are an area of focus for safety. In 2002 and 2003, 416 medication incidents involving narcotics were reported to ISMP Canada by hospitals that participated in a research project.

Limiting opiates and narcotics available in floor stock, as well as staff education and training about the potential confusion between hydromorphone and morphine can reduce medication errors.

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### TESTS FOR COMPLIANCE

- The organization has completed an audit of narcotic (opioid) storage areas. The audit includes a review of products and quantities stored; and identification and removal of unnecessary products.
- The organization has removed the following products (exceptions include palliative care): hydromorphone ampoules or vials with concentration greater than 2 mg/ml; and morphine ampoules or vials with concentration greater than 15 mg/ml.
- The organization standardizes and limits the number of parenteral narcotic (opioid) concentrations available.

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### REFERENCE MATERIAL

- (1) ISMP Canada Safety Bulletin. Narcotic Safeguards – the Challenge Continues. 2002; Volume 2, Number Issue 2.
- (2) ISMP List of High Alert Medications. <http://www.ismp.org/Tools/highalertmedications.pdf>
- (3) Implementing System Safeguard to Prevent Error-Induced Injury with Opioids: An ISMP Canada Collaborative. Identifying and Reducing Risks, volume 19.



## CLIENT SAFETY PLAN

**The organization develops and implements a client safety plan, and implements improvements to client safety as required.**

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### GUIDELINES

Client safety may be improved when organizations consider and develop a plan for addressing safety issues. Safety plans consider the safety issues related to the organization, delivery of services, and needs of clients and families. The safety plan includes a range of topics and approaches to addressing and evaluating safety issues. Safety plans may address mentoring staff and service providers, the role of leadership (e.g. client safety leadership walkabouts), implementing organization-wide client safety initiatives, accessing evidence and best practices, and recognizing staff and service providers for innovations to improve client safety.

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### TESTS FOR COMPLIANCE

- The organization assesses client safety issues.
- There is a plan and process in place to address identified client safety issues.

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### REFERENCE MATERIAL

- (1) Zimmerman R, Ip I, Christoffersen E, Shaver J. Developing a patient safety plan. *Healthcare Quarterly*. 2008; 11(Sp): 26-30.
- (2) Kohn, L, Corrigan J, Donaldson M. *To Err Is Human: Building a Safer Health System*. Washington: National Academy Press. 1999.

## CLIENT SAFETY: ROLES AND RESPONSIBILITIES

**The organization defines the roles, responsibilities, and accountabilities of the organization's leaders, staff, service providers, and volunteers for client care and safety.**

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### GUIDELINES

The organization's leaders, staff, service providers, and volunteers play important roles in client safety. System errors that are a result of multiple breakdowns in processes and communication often contribute to adverse events.

Roles and responsibilities for client safety may be defined in position profiles, performance appraisals, handbooks, and orientation material. In addition, client safety can be addressed on a regular basis in newsletters and client safety committee minutes.

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### TESTS FOR COMPLIANCE

- Attention to client safety is demonstrated by defining roles and responsibilities for client safety.
- The organization's leaders, staff, service providers, and volunteers can articulate how they contribute to client safety.
- Policies and procedures outline behaviours to promote client safety.

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### REFERENCE MATERIAL

- (1) Leonard, M. *Achieving Safe and Reliable Healthcare*. Chicago: Health Administrative Press. 2004.

## CLIENT SAFETY: EDUCATION AND TRAINING

**The organization delivers client safety training and education at least annually to the organization's leaders, staff, service providers, and volunteers, including education targeted to specific client safety focus areas.**

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### GUIDELINES

Annual education on client safety is made available to the organization's leaders, staff, service providers, and volunteers, and organizations identify specific client safety focus areas such as safe medication use, using the reporting system for adverse events, human factors training, techniques for effective communication, equipment and facility sterilization, handwashing and hand hygiene, and infection prevention and control.

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### TESTS FOR COMPLIANCE

- There is annual client safety training, tailored to staff needs and the organization's client safety focus areas.

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### REFERENCE MATERIAL

- (1) Canadian Patient Safety Institute. *Tools & resources*. Available from the Canadian Patient Safety Institute website: <http://www.patientsafetyinstitute.ca/English/toolsResources/Pages/default.aspx>.
- (2) National Steering Committee on Patient Safety. (2002). *Building a safer system: A national integrated strategy for improving patient safety in Canadian health care*. Retrieved from the Royal College of Physicians and Surgeons of Canada website: [http://rcpsc.medical.org/publications/building\\_a\\_safer\\_system\\_e.pdf](http://rcpsc.medical.org/publications/building_a_safer_system_e.pdf).



## PREVENTIVE MAINTENANCE PROGRAM

**The organization's leaders implement an effective preventive maintenance program for medical devices, medical equipment, and medical technology.**

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### GUIDELINES

An effective preventive maintenance program helps the organization ensure medical devices, medical equipment, and medical technology are safe and functional. It also helps identify and address potential problems with medical devices, medical equipment, or medical technology that may result in injury to staff or clients.

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### TESTS FOR COMPLIANCE

- There is a preventive maintenance program in place for all medical devices, medical equipment, and medical technology.
- There are documented preventive maintenance reports.
- The organization's leaders have a process to evaluate the effectiveness of the preventive maintenance program.
- There is documented follow-up related to investigating incidents and problems involving medical devices, equipment, and technology.

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### REFERENCE MATERIAL

- (1) Silva R, Pinda M. Risk-based preventive maintenance program for medical equipment. *J Clin Eng.* 2000; 25(5):265-276.

## WORKPLACE VIOLENCE PREVENTION

**The organization implements a comprehensive strategy to prevent workplace violence.**

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### GUIDELINES

Workplace violence is very common in health care settings, more so than in many other workplaces. One-quarter of all incidents of workplace violence occur at health services organizations. Furthermore, workplace violence is an issue that affects staff and health providers across the health care continuum.

Accreditation Canada has adopted the modified International Labour Organization definition of workplace violence as: 'Incidents in which a person is threatened, abused or assaulted in circumstances related to their work, including all forms of harassment, bullying, intimidation, physical threats, or assaults, robbery or other intrusive behaviours. These behaviours could originate from customers or co-workers, at any level of the organization.'

The Registered Nurses Association of Ontario describes four classifications of workplace violence:

- Type I (Criminal Intent): Perpetrator has no relationship to the workplace.
- Type II (Client or Customer): Perpetrator is a client, visitor, or family member of a client at the workplace becomes violent toward a worker or another client.
- Type III (Worker-to-worker): Perpetrator is an employee or past employee of the workplace.
- Type IV (Personal Relationship): Perpetrator has a relationship with an employee (e.g. domestic violence in the workplace).

A strategy to prevent workplace violence should be in compliance with applicable provincial or territorial legislation, and is an important step to respond to the growing concern about violence in health care workplaces.

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### TESTS FOR COMPLIANCE

- The organization has a written workplace violence prevention policy.
- The policy is developed in consultation with staff, service providers, and volunteers.
- The policy names the individual(s) responsible for implementing and monitoring the policy.
- The organization conducts risk assessments to ascertain the risk of workplace violence.
- There is a documented process in place for staff and service providers to confidentially report incidents of workplace violence.
- There is a documented process in place for the organization's leaders to investigate and respond to incidents of workplace violence.
- The organization's leaders review quarterly reports of incidents of workplace violence and use this information to improve safety, reduce incidents of violence, and make improvements to the workplace violence prevention policy.
- The organization provides information and training to staff on the prevention of workplace violence.

(Cont'd on next page...)



Workplace violence prevention (cont'd)

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## REFERENCE MATERIAL

- (1) Framework guidelines for addressing workplace violence in the health sector. International Labour Office, International Council of Nurses, World Health Organization, Public Services International. 2002.
- (2) Kling, R., et al (2009). Characterizing violence in health care in British Columbia. *Journal of Advance Nursing*, 65: 1655-1663.
- (3) Gacki-Smith, J., et al. (2009). Violence against nurses in US emergency departments. *Journal of Nursing Administration*, 39: 340-349
- (4) Gates, D., et al (2005). Reducing assaults against nursing home caregivers. *Nursing Research*, 54: 119-127.
- (5) Peek-Asa, C., et al (2009). Workplace violence prevention programs in psychiatric units and facilities. *Archives of Psychiatric Nursing*, 23: 166-176.
- (6) Preventing and Managing Violence in the Workplace. *Healthy Work Environments Best Practice Guidelines*. 2009. Registered Nurses Association of Ontario. Toronto, ON.



## HAND-HYGIENE AUDIT

**The organization evaluates its compliance with accepted hand-hygiene practices.**

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### GUIDELINES

Hand hygiene is considered the single most important way to reduce nosocomial infections, but compliance with hand hygiene protocols is often poor.

Hand hygiene audits allow organizations to monitor compliance with hand hygiene protocols, improve education and training on hand hygiene, evaluate hand hygiene facilities, and benchmark compliance practices across the organization. Studies have shown that improvements in compliance with hand-hygiene practices has decreased the number of health-care associated infections.

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### TESTS FOR COMPLIANCE

- The organization audits its compliance with hand hygiene practices.
- The organization shares results from the audits with staff, service providers, and volunteers.
- The organization uses the results of the audits to make improvements to its hand hygiene practices.

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### REFERENCE MATERIAL

- (1) Howard DP, et al. A simple effective clean practice protocol significantly improves hand decontamination and infection control measures in the acute surgical setting. *Infection*. 2009; 37(1):34-8.
- (2) Eveillard M, et al. Measurement and interpretation of hand hygiene compliance rates: importance of monitoring entire care episodes. *J Hosp Infect*. 2009.
- (3) Lederer JW, et al. A comprehensive hand hygiene approach to reducing MRSA health care-associated infections. *Jt Comm J Qual Patient Saf*. 2009; 35(4):180-5.
- (4) Bryce EA, et al. The infection control audit: the standardized audit as a tool for change. *Am J Infect Control*. 2007; 35(4):271-83.
- (5) Gould D, et al. Interventions to improve hand hygiene compliance in patient care. *Cochrane Database of Systematic Reviews*. 2007; Issue 2.



## HAND-HYGIENE EDUCATION AND TRAINING

**The organization delivers hand-hygiene education and training for staff, service providers, and volunteers.**

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### GUIDELINES

Hand hygiene is a critical element of an adequate infection control program in health care settings. However, adherence to proper hand-hygiene protocols is often poor. Cost estimates of health care-associated infections significantly exceed those related to hand hygiene. For example, the cost of hand-hygiene promotion corresponded to less than 1 percent of the costs associated with nosocomial infections.

Training on hand hygiene is multimodal and addresses the importance of hand hygiene in preventing the spread of infections, factors that have been found to influence hand-hygiene behaviour, and proper hand-hygiene techniques. Training also includes recommendations on when to clean one's hands, such as before and after each direct contact with a client.

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### TESTS FOR COMPLIANCE

- Education and training on hand hygiene and the hand-hygiene protocol is delivered.
- Staff, service providers, and volunteers understand how to apply the hand hygiene protocol.

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### REFERENCE MATERIAL

- (1) Hilburn J, Hammond BS, Fendler EJ, Groziak PA. Use of alcohol hand sanitizer as an infection control strategy in an acute care facility. *American Journal of Infection Control*. 2003;31(2):109-16.
- (2) Huber MA, Holton RH, Terezhalmay GT. Cost analysis of hand hygiene using antimicrobial soap and water versus an alcohol-based hand rub. *Journal of Contemporary Dental Practice*. 2006; 7(2):37-45.
- (3) Gould D. Nurses' hands as vectors of hospital-acquired infection: a review. *Journal of Advanced Nursing*. 1991; 16(10):1216-25.
- (4) Stone PW, Hasan S, Quiros D, Larson EL. Effect of guideline implementation on costs of hand hygiene. *Nursing Economics*. 2007; 25(5):279-84.
- (5) Pittet D, Sax H, Hugonnet S, Harbarth S. Cost implications of successful hand hygiene promotion. *Infection Control & Hospital Epidemiology*. 2004; 25(3):264-6.



## INFECTION CONTROL GUIDELINES

**The organization adheres to international, federal, and provincial or territorial infection control guidelines.**

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### GUIDELINES

Developing and implementing comprehensive infection prevention and control guidelines reduces risks of health care-associated infections and contributes to client safety. Provincial guidelines or groups include the Provincial Infectious Diseases Advisory Committee (PIDAC) in Ontario, and the Comité sur les infections nosocomiales du Québec (CINQ).

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### TESTS FOR COMPLIANCE

- The organization is aware of and follows evidence-based international, federal, and provincial or territorial infection control guidelines.

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### REFERENCE MATERIAL

- (1) Burke JP. Infection Control: A Problem for Patient Safety. Health Policy Report. 2003; 348, 651-656.
- (2) Gurses AP, Seidl KL, Vaidya V, Bochicchio G, Harris AD, Hebden J, Xiao Y. Systems ambiguity and guideline compliance: a qualitative study of how intensive care units follow evidence-based guidelines to reduce healthcare-associated infections. Qual Saf Health Care. 2008; 17: 351-359.



## INFECTION RATES

**The organization tracks infection rates; analyzes the information to identify clusters, outbreaks, and trends; and shares this information throughout the organization.**

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### GUIDELINES

Tracking methods may focus on a particular disease or service area, or may be organization- or system-wide. They may include virtual surveillance and data analysis techniques to help detect previously unrecognized outbreaks.

The organization identifies the infections and infectious agents most common to its services and client populations; this may include *C. difficile*, surgical site infections, influenza A, Norwalk, and urinary tract infections. The organization tracks these as well as other reportable diseases and antibiotic resistant organisms. The information tracked includes frequencies and changes in frequencies over time, associated mortality rates, and attributed costs.

Staff who are well informed about infection rates are usually better equipped to prevent and manage infections. The organization identifies who is responsible for receiving information about infections and diseases, e.g. the governing body, senior management, staff, and service providers, and establishes plans to disseminate information appropriately and in a regular and timely way, e.g. quarterly reports to all departments.

In addition to staff and service providers, the organization also keeps the governing body up-to-date about infection rates and associated infection prevention and control issues. This may be done directly through senior management, or through a Medical Advisory Committee.

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### TESTS FOR COMPLIANCE

- The organization tracks infection rates.
- The organization analyzes outbreaks and makes recommendations to prevent recurrences.
- Staff and service providers are aware of the infection rates and recommendations from outbreak reviews.
- The organization provides quarterly updates on infection rates.

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### REFERENCE MATERIAL

- (1) Jarvis, W. Benchmarking for prevention: the Centers for Disease Control and Prevention's National Nosocomial Infections Surveillance (NNIS) system experience. *Infection*. 2003; 31, suppl 2: 44-48.
- (2) Humphreys H, Cunney R. Performance indicators and the public reporting of healthcare associated infection rates. *Clinical Microbiology and Infection*. 2008;14: 892-894.
- (3) O'Neill E, Humphrey H. Use of surveillance data for prevention of healthcare associated infection: risk adjustment and reporting dilemmas. *Current Opinions in Infectious Diseases*. 2009; 22: 359-363.



## INFLUENZA VACCINE

**The organization develops and implements a policy and procedure for administration of the influenza vaccine.**

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### GUIDELINES

Vaccination is a low cost and effective method of preventing illness. Evidence shows that an intervention to improve the assessment and delivery of influenza vaccination to healthcare staff, service providers, and clients would improve clinical outcomes in addition to realizing cost savings for the health system.

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### TESTS FOR COMPLIANCE

- The organization has a policy and procedure for the administration of the influenza vaccine.
- The policy and procedure include identifying populations at increased risk of complications associated with influenza.
- The policy and procedure includes vaccinating staff and service providers against influenza.

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### REFERENCE MATERIAL

- (1) Kwong J, et al. Effect of Universal Influenza Immunization on Mortality and Health Care Use. PLoS Medicine. 2008; 5: e211.
- (2) Anikeeva O, et al. Requiring Influenza Vaccination for Health Care Workers. Amer J of Public Health. 2009; 99: 24.
- (3) Nichol K, et al. Burden of Influenza like illness and effectiveness on influenza vaccination among working adults aged 50-64 years. CID. 2009; 48: 292.
- (4) Polgreen P, et al. A statewide system for improving influenza vaccination rates among hospital employees. Inf Cont Hosp Epidem. 2009; 30.



## PNEUMOCOCCAL VACCINE

**The organization develops and implements a policy and procedure for administration of the pneumococcal vaccine.**

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### GUIDELINES

Populations at risk of complications from pneumococcal disease may include clients and staff.

Evidence shows that immunizing high-risk clients can improve morbidity and mortality rates, and reduce costs for the healthcare system.

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### TESTS FOR COMPLIANCE

- The organization has a policy and protocol to administer the pneumococcal vaccine.
- The policy and protocol includes identifying populations at risk of complications from pneumococcal disease.

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### REFERENCE MATERIAL

- (1) Williams RM. Pneumococcal vaccination. Lippincott's Primary Care Practice. 1998; 2(6):625-33.
- (2) Sisk JE, Moskowitz AJ, Whang W, Lin JD, Fedson DS, McBean AM, Plouffe JF, Cetron MS, Butler JC. Cost-effectiveness of vaccination against pneumococcal bacteremia among elderly people. JAMA. 1997; 278(16):1333-9.
- (3) Honeycutt AA, Coleman MS, Anderson WL, Wirth KE. Cost-effectiveness of hospital vaccination programs in North Carolina. Vaccine. 2007; 25(8):1484-96.



## STERILIZATION PROCESSES

**The organization monitors its processes for reprocessing equipment, and makes improvements as appropriate.**

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### GUIDELINES

Monitoring the sterilization cycle helps organizations identify areas for improvement and reduce nosocomial infections.

Organizations reprocess equipment according to manufacturers' instructions. If the organization does not reprocess equipment, it has a process to ensure equipment has been appropriately reprocessed prior to use.

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### TESTS FOR COMPLIANCE

- There is evidence that reprocessing processes and systems are effective.
- Action has been taken to examine and improve reprocessing processes where indicated.

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### REFERENCE MATERIAL

- (1) Bailey TM, Ries NM. Legal Issues in Patient Safety: The Example of Nosocomial Infection. *Healthcare Quarterly*. 2005; Vol 8, Special Issue.
- (2) Rutala WA, Weber DJ. Infection control: the role of disinfection and sterilization. *Journal of Hospital Infection*. 2004; 43(1), S43-S55.



## FALLS PREVENTION STRATEGY

**The team implements and evaluates a falls prevention strategy to minimize client injury from falls.**

### GUIDELINES

Falls may lead to client injury, increased health care costs, and possibly claims of clinical negligence.

Falls prevention programs may include but are not limited to staff training, risk assessments, balance and strength training, vision care, medication reviews, physical environment reviews, behavioural assessments, and bed exit alarms. Possible measures to evaluate a falls prevention strategy may include tracking the percentage of clients receiving a risk assessment, falls rates, causes of injury, and balancing measures such as restraint use. Conducting post-fall debriefings may also assist to identify safety gaps, and to prevent the recurrence of falls..

In Canada, *Safer Healthcare Now!* has identified falls prevention as a safety priority. Reducing falls and fall injuries can increase quality of life for clients and reduce costs associated with serious injury from falls.

### TESTS FOR COMPLIANCE

- The team implements a falls prevention strategy.
- The strategy identifies the populations at risk for falls.
- The strategy addresses the specific needs of the populations at risk for falls.
- The team establishes measures to evaluate the falls prevention strategy on an ongoing basis.
- The team uses the evaluation information to make improvements to its falls prevention strategy.

### REFERENCE MATERIAL

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## HOME SAFETY RISK ASSESSMENT

**The team conducts a safety risk assessment for clients receiving services in the home.**

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### GUIDELINES

Health services provided in a client's home present unique considerations for clients, families, and health care staff. The home health environment differs in a number of ways from facility-based health services including the unique characteristics of each client's home, the intermittent presence of health care staff, and the larger role played by families or caregivers in providing health services.

Home care agencies may have little direct control over risks in a client's home environment; however, the safety of clients, families, and staff involved in home health services is enhanced when a risk assessment is conducted. Results from a home safety risk assessment can be used to select priority service areas, and can help identify safety strategies to include in service plans, and to communicate to clients, families, and partner organizations.

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### TESTS FOR COMPLIANCE

- The team conducts a safety risk assessment for each client at the beginning of service.
- The safety risk assessment includes a review of: internal and external physical environments; chemical, biological, fire and falls hazards; medical conditions requiring special precautions; client risk factors; and emergency preparedness.
- The team uses information from the safety risk assessment when planning and delivering client services, and shares this information with partners who may be involved in planning of care.
- The team regularly updates the safety risk assessment and uses the information to make improvements to the client's health services.
- The team educates clients and families on home safety issues identified in the risk assessment.

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## PRESSURE ULCER PREVENTION

**The organization assesses each client's risk for developing a pressure ulcer and implements interventions to prevent pressure ulcer development.**

### GUIDELINES

Pressure ulcer prevention and treatment protocols can substantially reduce the prevalence of pressure ulcers. Preventing pressure ulcers improves client quality of life and caregiver morale, reduces health services costs, and is often an indication of higher quality care and services.

### TESTS FOR COMPLIANCE

- The organization conducts an initial pressure ulcer risk assessment at admission, using a standardized risk assessment tool.
- The organization reassesses each client for risk of developing pressure ulcers at regular intervals.
- The organization implements documented protocols and procedures to prevent the development of pressure ulcers, which include interventions to prevent skin breakdown, reduce pressure, reposition, manage moisture, maximize nutrition, and enhance mobility and activity.
- The organization educates staff on risk factors for pressure ulcers and strategies for the prevention of pressure ulcers.
- The organization monitors its success in preventing the development of pressure ulcers and makes improvements to its prevention strategies and processes.

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## SUICIDE PREVENTION

**The organization assesses and monitors clients for risk of suicide.**

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### GUIDELINES

Suicide is a global health concern. In 2006, the Public Health Agency of Canada reported that suicide accounted for 1.7 percent of all deaths in Canada. Risk assessment can help prevent suicide through early recognition of the signs of suicidal thinking and appropriate intervention.

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### TESTS FOR COMPLIANCE

- The organization assesses each client for risk of suicide at regular intervals, or as needs change.
- The organization identifies clients at risk of suicide.
- The organization addresses the immediate safety needs of client's who are identified as being at risk of suicide.
- The organization identifies treatment and monitoring strategies to ensure client safety.
- The organization documents the implementation of the treatment and monitoring strategies in the client's health record.

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## VENOUS THROMBOEMBOLISM (VTE) PROPHYLAXIS

**The team identifies medical and surgical clients at risk of venous thromboembolism (deep vein thrombosis and pulmonary embolism) and provides appropriate thromboprophylaxis.**

### GUIDELINES

Venous thromboembolism (VTE) is the collective term for deep vein thrombosis (DVT) and pulmonary embolism (PE). VTE is a serious and common complication for clients in hospital or undergoing surgery. Evidence shows that incidence of VTE can be substantially reduced or prevented by identifying clients at risk and providing appropriate, evidence-based thromboprophylaxis interventions. Currently, the American College of Chest Physicians Evidence-Based Clinical Practice Guidelines (8th edition) are the generally accepted standard of practice for the prevention of VTE.

The widespread human and financial impact of thromboembolism is well documented. Development of VTE is associated with increased patient mortality, and is the most common preventable cause of hospital death. In addition, both hospital costs and median length of stay are greatly increased for patients developing VTE.

NOTE: This ROP is not a requirement for pediatric hospitals. The ROP applies to clients 18 years of age or older.

### TESTS FOR COMPLIANCE

- The organization has a written thromboprophylaxis policy or guideline.
- The team identifies clients at risk for venous thromboembolism (VTE), [(deep vein thrombosis (DVT) and pulmonary embolism (PE)] and provides appropriate evidence-based, VTE prophylaxis.
- The team establishes measures for appropriate thromboprophylaxis, audits implementation of appropriate thromboprophylaxis, and uses this information to make improvements to their services.
- \*The team identifies major orthopaedic surgery clients (hip and knee replacements, hip fracture surgery) who require post-discharge prophylaxis and has a mechanism in place to provide appropriate post-discharge prophylaxis to such clients.
- The team provides information to health professionals and clients about the risks of VTE and how to prevent it.

\*This test for compliance has been removed in the Cancer Care and Oncology Standards, Organ and Tissue Donation Standards for Living Donors, and Organ and Tissue Transplant Standards.

(Cont'd on next page...)



Venous thromboembolism (VTE) prophylaxis (cont'd)

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# CHART OF REQUIRED ORGANIZATIONAL PRACTICES

## REQUIRED ORGANIZATIONAL PRACTICES

Our objective of guiding our clients toward safe and quality health care is strengthened by the Required Organizational Practices.

<b>SAFETY CULTURE</b>	<ul style="list-style-type: none"> <li>• Adverse events disclosure</li> <li>• Adverse events reporting</li> <li>• Client safety as a strategic priority</li> <li>• Client safety quarterly reports</li> <li>• Client safety-related prospective analysis</li> </ul>
<b>COMMUNICATION</b>	<ul style="list-style-type: none"> <li>• Client and family role in safety</li> <li>• Dangerous abbreviations</li> <li>• Information transfer</li> <li>• Medication reconciliation as an organizational priority</li> <li>• Medication reconciliation at admission</li> <li>• Medication reconciliation at transfer or discharge*</li> <li>• Safe surgery checklist</li> <li>• Two client identifiers</li> <li>• Verification processes for high-risk activities</li> </ul>
<b>MEDICATION USE</b>	<ul style="list-style-type: none"> <li>• Concentrated electrolytes</li> <li>• Heparin safety</li> <li>• Infusion pumps training</li> <li>• Medication concentrations</li> <li>• Narcotics safety</li> </ul>
<b>WORKLIFE/WORKFORCE</b>	<ul style="list-style-type: none"> <li>• Client safety plan</li> <li>• Client safety: roles and responsibilities</li> <li>• Client safety: education and training</li> <li>• Preventive maintenance program</li> <li>• Workplace violence prevention</li> </ul>
<b>INFECTION CONTROL</b>	<ul style="list-style-type: none"> <li>• Hand-hygiene audit</li> <li>• Hand-hygiene education and training</li> <li>• Infection control guidelines</li> <li>• Infection rates</li> <li>• Influenza vaccine</li> <li>• Pneumococcal vaccine</li> <li>• Sterilization processes</li> </ul>
<b>RISK ASSESSMENT</b>	<ul style="list-style-type: none"> <li>• Falls prevention strategy</li> <li>• Home safety risk assessment</li> <li>• Pressure ulcer prevention</li> <li>• Suicide prevention</li> <li>• Venous thromboembolism (VTE) prophylaxis</li> </ul>

\*Formerly Medication reconciliation at referral or transfer



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