NOTE: The first appearance of terms in bold in the body of this document (except titles) are defined terms - please refer to the Definitions section.

If you have any questions or comments regarding the information in this guideline, please contact the Policy & Forms Department at policy@albertahealthservices.ca. The Policy & Forms website is the official source of current approved policies, procedures, directives, and practice support documents.

OBJECTIVE

- To establish a consistent process for the activity of an independent double-check prior to medication administration, where appropriate.

APPLICABILITY

Compliance with this guideline is required by all Alberta Health Services employees, members of the medical and midwifery staffs, students, volunteers, and other persons acting on behalf of Alberta Health Services (including contracted service providers as necessary).

GUIDELINE ELEMENTS

1. Independent Double-check Preferred Process (Two Health Care Professionals)
   1.1 Two health care professionals shall independently verify:
       a) the most current prescriber order or medication administration record;
       b) the patient’s relevant laboratory values and/or diagnostic results;
       c) medication dosage calculations, if required;
d) the following medication ‘rights’ -
   (i) right patient,
   (ii) right medication,
   (iii) right dose,
   (iv) right time,
   (v) right route,
   (vi) right purpose/reason, and
   (vii) right documentation; and

e) pump programming.

1.2 The first health care professional shall not communicate what she/he expects the second health care professional to see when conducting verifications set out in section 1.1.

1.3 Once the second health care professional has finished his/her verification, each health care professional’s results or conclusions shall be shared to determine accuracy or discrepancies.

1.4 If more than one medication is to be prepared in a single syringe, each professional shall independently calculate each of the required doses, and compare results for all medications, prior to drawing up the medication.

1.5 In the event of any discrepancies are discovered, the independent double-check steps are conducted again by the first and second health care professionals:
   a) If discrepancies are still found, consult a third health care professional to resolve discrepancies prior to administration of the medication.
   b) If, following a third health care professional’s verification, discrepancies remain unresolved, the first health care professional is required to consult with the authorized prescriber to clarify medication orders.

Note: Refer to Appendix A Independent Double-check: Two Professionals (preferred situation), and Appendix B Infusion Pump.

2. Health Care Professional Working Alone

Note: In emergency situations, it is expected that a health care professional may be unable to obtain an independent double-check prior to medication administration.

2.1 Independent double-checks may not be possible where the health care professional works alone or provides services in the community or continuing
care setting. When the preferred process of two health care professionals performing independent double-check is not possible, one of the following alternative processes may be implemented.

2.2 First option: Where the medication has been prepared and checked at the pharmacy, but the sole health care professional was not present, the sole health care professional performs the role of the second professional in the independent double-check process prior to administration. Refer to section 1.5 for resolution of discrepancies.

2.3 Second option: One health care professional working in a setting alone, without access to another health care professional to complete all steps of the independent double-check may:
   a) perform all steps in section 1 of this document independently; then
   b) step away and perform another task (delaying self-verification of work increases the chance of detecting errors); then
   c) return and repeat the required steps in section 1. See Appendix C Independent Double-check: One Professional (limited or no access to another).

2.4 Remote access (e.g., via telephone, videoconference or computer videolink) to another health care professional may be used to verify medication orders and infusion pump settings where the remote participant has access to the most current prescriber order.

3. Documentation

3.1 Clinical documentation of the independent double-check is required by both health care professionals in the patient’s health record. Documentation includes, but is not limited to:

   a) health care professionals’ signatures, initials, names, or other unique identifier in clinical information systems; and

   b) date and time(s) the independent double-check(s) were performed.

3.2 When unable to obtain both signatures (e.g., an electronic health record is not programmed for that operation), the health care professional administering the medication shall document in the health record who assisted with the independent double-check or indicate if the independent double-check was performed by an individual working alone.
DEFINITIONS

Emergency situation means a situation which requires health care that is necessary to preserve life, prevent serious physical or mental harm, or to alleviate severe pain.

Health care professional means an individual who is a member of a regulated health discipline, as defined by the Health Disciplines Act [Alberta] or the Health Professions Act [Alberta], and who practises within scope and role.

Health record means the Alberta Health Services legal record of the patient’s diagnostic, treatment and care information.

Infusion pump(s) means all pumps used to control delivery of parenteral fluid and/or medicated solutions, including but not limited to syringe, epidural, patient-controlled analgesia (PCA), dose error reduction software (DERS; also known as “SMART” or “smart technology”), “general purpose”, large volume and ambulatory pumps.

Order means a direction given by a regulated health care professional to carry out specific activity(-ies) as part of the diagnostic and/or therapeutic care and treatment, to the benefit of a patient. An order may be written (including handwritten and or electronic), verbal, by telephone or facsimile.

REFERENCES

- Appendix A Independent Double-check: Two Professionals (preferred situation)
- Appendix B Infusion Pump
- Appendix C Independent Double-check: One Professional (limited or no access to another)
- Alberta Health Services Invasive Infusion Line and Tubing Verification Policy #PS-15
- Alberta Health Services Patient Identity Verification Policy #PS-06
- Health Professions Act [Alberta]
- Health Disciplines Act [Alberta]

VERSION HISTORY

<table>
<thead>
<tr>
<th>Date</th>
<th>Action Taken</th>
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<tbody>
<tr>
<td>April 9, 2015</td>
<td>Approved</td>
</tr>
<tr>
<td>April 13, 2016</td>
<td>Revision</td>
</tr>
<tr>
<td>March 6, 2017</td>
<td>Non-substantive change to Appendix B</td>
</tr>
</tbody>
</table>
Independent Double-check: Two Professionals (preferred situation)

The following is intended to support the independent double-check process and is not inclusive of the medication administration procedure.

<table>
<thead>
<tr>
<th>Steps to complete the Independent Double-check - Two Professionals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional 1 and Professional 2 independently verify:</td>
</tr>
<tr>
<td>• patient identity (per Alberta Health Services Patient Identity Verification Policy);</td>
</tr>
<tr>
<td>• current prescriber order;</td>
</tr>
<tr>
<td>• patient's relevant laboratory values and/or diagnostic results;</td>
</tr>
<tr>
<td>• medication dosage calculations, if required;</td>
</tr>
<tr>
<td>• medication 'rights' including: right patient, right medication, right dosage, right time, right route, right purpose/reason.</td>
</tr>
</tbody>
</table>

**Step One -**

Professional 1 independently:

• verifies medication(s) using the ‘medication rights’;
• completes the medication calculations.

**Do Not**

• communicate medication calculation(s) results to Professional 2;
• mix the medication(s) at this step.

**Step Two -**

Professional 2 independently verifies:

• verifies medication(s) using the ‘medication rights’;
• completes the medication calculation(s).
**APPENDIX A continued**

<table>
<thead>
<tr>
<th>Steps to complete the Independent Double-check - Two Professionals Continued</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step Three -</strong></td>
</tr>
<tr>
<td><strong>Professional 1 and Professional 2</strong> compare medication dose and calculation results, if required.</td>
</tr>
<tr>
<td>If there are any discrepancies, repeat the independent double-check process (steps 1 – 3)</td>
</tr>
<tr>
<td>If discrepancies still exist, a third health care professional must perform the checks and calculations.</td>
</tr>
<tr>
<td>If discrepancies remain after a third health care professional checks the calculations, the first health care professional shall clarify the medication orders with the authorized prescriber.</td>
</tr>
<tr>
<td><strong>Step Three - A</strong></td>
</tr>
<tr>
<td>If more than one medication is to be prepared in a single syringe, <strong>Professional 2</strong> must observe and verify the correct dose as each medication is prepared.</td>
</tr>
<tr>
<td><strong>Step Three - B</strong></td>
</tr>
<tr>
<td>When an independent double-check verifies the medication preparation to be correct, <strong>Professional 1</strong> prepares and administers medication.</td>
</tr>
<tr>
<td><strong>Note:</strong> If using an infusion pump, refer to Appendix B <em>Infusion Pump</em>.</td>
</tr>
<tr>
<td><strong>Step Four</strong></td>
</tr>
<tr>
<td><strong>Document</strong> the independent double-check on the health record:</td>
</tr>
<tr>
<td>• Signature, initials or names of participating health care professionals and the date and time(s) checks were performed.</td>
</tr>
</tbody>
</table>
Infusion Pump

APPENDIX B

Infusion Pump Required

Professional 1:
- verifies patient identity (per Alberta Health Services Patient Identity Verification Policy);
- mixes the medication and completes the medication preparation;
- hangs infusion solution and readiness it for infusion;
- programs the infusion pump and confirms the pump programming (including patient weight, where possible);
- performs invasive infusion line and tubing verification (per Alberta Health Services Invasive Infusion Line and Tubing Verification Policy); and
- initiates required patient monitoring.

Professional 2:
- verifies patient identity (per Alberta Health Services Patient Identity Verification Policy);
- confirms invasive infusion line and tubing verification (per Alberta Health Services Invasive Infusion Line and Tubing Verification Policy); and
- compares the pump programming to the most current medication order or medication administration record.

Professional working alone completes independent verification of patient identity or verifies with patient and/or family member.
- Complete steps for Professional 1 listed above.
- Conduct a double-check by repeating the steps above a second time just prior to administration; the professional should perform a different task between these checks.

NOTE: If any discrepancy is noted, repeat the independent double check. If the discrepancy still exists, clarify the medication order with the authorized prescriber.

When an independent double-check verifies the medication preparation and infusion pump settings to be correct, Professional 1 proceeds with medication administration and initiates infusion.

Go to Appendix A Independent Double-check: Two Professionals (preferred situation) or Appendix C Independent Double-check: One Professional (limited or no access to another) - Step Four, for one or for two professionals.
### APPENDIX C

**Independent Double-check: One Professional (limited or no access to another)**

#### Steps to complete the Independent Double-check - One professional

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step One</strong> - Professional working alone:</td>
<td>&lt;br&gt;• verifies medication(s) using the medication ‘rights’;&lt;br&gt;• completes medication calculations;&lt;br&gt;• performs a separate task following preparation of medication in <strong>Step One</strong>.</td>
</tr>
<tr>
<td><strong>Step Two</strong> - Professional working alone:</td>
<td>&lt;br&gt;• verifies medication(s) again, using the medication ‘rights’;&lt;br&gt;• completes medication calculations, again.</td>
</tr>
<tr>
<td><strong>Step Three</strong> - Professional compares medication dose and calculation results.</td>
<td>&lt;br&gt;<strong>If there are any discrepancies</strong>, repeat the independent double-check process (steps 1 - 3).&lt;br&gt;&lt;br&gt;<strong>If discrepancies still exist</strong>, clarify medication orders with the authorized prescriber.&lt;br&gt;&lt;br&gt;When an independent double-check verifies the medication preparation to be correct, <strong>Professional 1</strong> proceeds with medication administration.</td>
</tr>
<tr>
<td><strong>Step Four</strong></td>
<td>&lt;br&gt;Document the independent double-check on the patient health record:&lt;br&gt;• signature, initials or name of health care professional;&lt;br&gt;• date and time(s) checks were performed;&lt;br&gt;• how the independent double-check was completed.</td>
</tr>
</tbody>
</table>