

Independent Double Check (IDC) of Medications

Site Applicability

- All VCH sites

Practice Level

Basic, within the respective scope of practice for the following:

- Registered Nurse (RN)
- Registered Psychiatric Nurse (RPN)
- Licensed Practical Nurse (LPN)
- Nurse Practitioner (NP)

Students

The IDC process must be conducted by two [authorized clinicians](#). For the purposes of learning, students may administer medication requiring an Independent Double Check (IDC) with the support of two additional [authorized clinicians](#). One authorized clinician must supervise the student's preparation and administration of the medication and the second authorized clinician must complete the IDC.

Requirements

A clinician is authorized to perform an IDC when the following criteria are met:

1. Medication administration is within their scope of practice, and
2. They have organizational approval to administer medication, and
3. They have the competency to administer medication, i.e. knowledge, attitude, skill, and judgement required. Additionally:
 - For oncology medication the IDC prior to administration may be performed by a nurse who has been educated to perform the required dosing calculations including Body Surface Area; the nurse administering the medication must have successfully completed a unit based Antineoplastic Cytotoxic Competency Program.

Meeting the above criteria, a clinician will conduct an Independent Double Check (IDC) when required or anytime an IDC is requested by an authorized clinician.

Need to Know

The Institute for Safe Medication Practices (ISMP) and Accreditation Canada support using Independent Double Checks as a strategy to mitigate potential harm from medication error. Research has shown that, "people find approximately 95 percent of mistakes when checking the work of others" (ISMP Canada Safety Bulletin, Jan, 2005, 5 (1) para. 6)

The process of an Independent Double Check is different from the process of a Double Check. ([Please refer to definitions](#))

Adult Populations

- An IDC must be completed for medication as indicated within the VPP Adult List ([Appendix A](#)).
- For medication requiring an IDC ([Appendix A](#)), the IDC must be conducted:
 1. prior to each administration of an oral medication
 2. prior to each administration of select parenteral bolus doses delivered by direct injection or infusion
 3. prior to each administration of all parenteral, intermittent, or continuous infusions:
 - a. upon initiation of an infusion (via bag or syringe), including:
 - i. initiation of a bag or syringe added to replace an empty bag or syringe
 - b. bag or syringe that is restarted following a stop
 - c. when an order is changed, including:
 - i. drug dose, and /or
 - ii. drug concentration, and / or
 - iii. infusion parameters, e.g. rate change

Exceptions to IDC requirement for drugs on the VPP Adult IDC list:

- During a Code Blue
- Alteplase (IV route) - intra cannula dwells
- Methadone (oral liquid) - when dose provided is in a client specific, final dosage form and no preparation of the dose is needed, only standard checking procedure is required
- Rate adjustments for currently running infusions when:
 - a. the order includes instructions for titration/rate changes AND
 - b. an IDC was completed when the syringe or bag was most recently initiated, i.e. started, changed, or restarted following a stop
- Heparin (IV Route) – When administered during a procedure to prevent device clotting, i.e. Hemodialysis, Apheresis, Electrophysiology
- Insulin (IV Route) – TPN solution with insulin added

Pediatric Populations

- An IDC must be completed for medication as indicated within the BC Children's and Women's High Alert Medication list [BC Children's and Women's Policy - High Alert Medications; Appendix A](#)
- An IDC may be requested for any pediatric medication at the discretion of a clinician or program
- Refer to: [BC Children's and Women's Policy: Independent Double Check for Medication Administration](#)

Guideline

A clinician, prior to administering medication, conducts the standard checking procedure of medication administration and client identification regardless of an IDC having been completed.

Discrepancies and Resolution

- If a discrepancy is identified, the clinicians repeat the IDC process.

Working Alone and IDC

- When a clinician requires an IDC but is working without access to another clinician to perform this process they will:
 - Allow 10 (ten) minutes to elapse between the first and second checks to repeat verification of the accuracy of the parameters specified in this guideline.
 - Document in the health record that one clinician conducted the IDC process.

Independent Double Check Procedure

The Independent Double Check Process requires two [authorized clinicians](#) with their own responsibilities:

1 st Clinician – Preparation and Administration	2 nd Clinician – Verification
<ul style="list-style-type: none"> • Completes Standard Checking procedure for the medication, including positive patient identification (PPID) using two unique approved identifies. • Prepares medication (keeps all relevant labels, equipment for second clinician) • Administers medication AFTER second clinician completes IDC • Documents medication administration 	<ul style="list-style-type: none"> • Performs the IDC PRIOR to medication administration • Documents the IDC

Procedure:

Clinician #1

1. Identifies that the medication requires an IDC
2. Completes Standard Checking procedure including:
 - 2.1 Checks prescriber's orders (paper systems only) and/or Medication Administration Record (MAR) to ensure alignment
 - 2.2 Notifies another authorized clinician that an IDC is required
 - 2.3 Gathers supplies needed for preparation and administration of medication.
 - 2.4 Obtains medication to be administered.
 - 2.5 Calculates the required dose; does not share the calculated answer with the 2nd clinician.

2.6 Prepares the medication(s) using at a minimum:

- a. Two unique client identifiers
- b. Medication name
- c. Medication strength or concentration
- d. Dose
- e. Route
- f. Frequency

3. If applicable, also uses:

- a. Dose calculation as directed in the order to use:

Client body weight

OR

Client body surface area (BSA)

- a. Dose calculation
- b. Volume of additive
- c. Diluent
- d. Volume of final solution

****Note: Keep original medication container/packaging for 2nd clinician to use for verification****

Once the medication has been prepared, the second clinician will perform an IDC with no verbal prompts between the two clinicians. **The second clinician does not view the prepared medication until it is time for them to verify the prepared dose.**

Clinician #2

1. Checks prescriber's orders (paper systems only) and/or Medication Administration Record (MAR) to ensure alignment
2. Calculates the required dose;
3. Verifies the prepared medication reviewing at a minimum the MAR and the original medication label:

- a. Two unique client identifiers
- b. Medication name
- c. Medication strength or concentration
- d. Dose
- e. Route
- f. Frequency

4. If applicable, also verifies:

- a. as directed in the order has been used:

Client body weight

OR

Client body surface area (BSA)

- b. Dose calculation

- c. Volume of additive
 - d. Diluent
 - e. Volume of final solution
5. Compares their calculated dose to the 1st clinician's calculated dose

Both Clinicians

1. If a discrepancy is identified, the clinicians repeat the IDC process. If the discrepancy continues, ask a third authorized clinician to do an IDC of the medication and/or contact the unit clinical leader for assistance and/or prescriber for clarification.
2. If there is no discrepancy identified, the 1st clinician proceeds with medication administration.
3. Both clinicians document in the health record.

If the medication will be administered using an infusion pump, the following steps are also taken:

1st Clinician

1. Loads the prepared and verified medication into the appropriate administration infusion pump
2. Verifies correct route and patency of access (including connection to correct site/lumen)
3. Programs pump for medication administration, as ordered, including:
 - a. MRN entry within the pump (if available)
 - b. Medication selection
 - c. Strength or concentration (within guardrails if using Alaris CareFusion)
 - d. Volume of solution
 - e. Rate or duration
 - f. If applicable:
 - as directed in the order:
Client body weight
 - *OR***
Client body surface area (BSA)
4. Once the pump parameters have been entered the second clinician will perform an IDC with no verbal prompts between the two clinicians.

2nd Clinician

1. Independently verifies pump settings and parameters, using medication order, including:
 - a. MRN entry within the pump (if available)
 - b. Medication selection
 - c. Strength or concentration (within guardrails if using Alaris CareFusion)
 - d. Volume of solution
 - e. Rate or duration
 - f. If applicable:

- Client body weight
- ***OR***
- Client body surface area (BSA)

Both Clinicians

1. Verbally verify that the entered pump parameters for the medication to be administered are correct or not.
2. If a discrepancy is identified, the clinicians repeat the IDC process. If the discrepancy continues, ask a third authorized clinician to do an IDC and/or contact the unit clinical leader for assistance and/or prescriber for clarification.
3. If the pump parameters are determined to be correct, the infusion is started.
4. Both clinicians document in the health record.

Working Alone and IDC

When a clinician requires an IDC but is working without access to another clinician to perform this process they will:

- Allow 10 (ten) minutes to elapse between the first and second checks to repeat verification of the accuracy of the parameters specified in this guideline.
- Document in the health record that the IDC process was conducted by one clinician.
- If a discrepancy is identified, the clinician repeats the IDC process. If the discrepancy continues, contact the unit clinical leader for assistance and/or prescriber for clarification.

Documentation

Both clinicians document on the client's health record in the same location.

Paper Health Records**Two authorized clinicians**

- Both clinicians write their initials adjacent to each other on the Medication Administration Record (MAR)
- To indicate an IDC, the second clinician writes "IDC" adjacent to the two clinicians' initials, e.g. LT/JZ (IDC)

Two authorized clinicians with a student

- The student who administered the medication writes their initials on the MAR and the supervising clinician writes a dash and their initials adjacent followed by a slash, the clinician completing the IDC writes their initials and IDC after a slash, e.g. DC-RK/SP (IDC)

One authorized Clinician, i.e. working alone

- The clinician writes their initials on the MAR twice
- To indicate an IDC, the clinician writes "IDC" adjacent to their second initials, e.g. LT/LT (IDC – no second clinician)

Electronic Health Records

In the Cerner electronic health record (EHR) an IDC is documented in the MAR or iView:

- IDCs for the initiation of any new bag, syringe, and/or a bolus dose is documented in the MAR. IDCs for rate changes are documented in iView.
- When documenting in the MAR, the clinician administering the medication documents within the 'Performed by' field. The clinician who conducted the IDC documents within the 'Witnessed by' field
- When documenting in iView, the clinician who conducts the IDC documents within the IDC Discreet Task Assay (DTA)

Two authorized clinicians with a student

- The student who administered the medication documents in the 'Performed by' field and the clinician who completed the IDC documents in the 'Witnessed by' field. The clinician supervising the student documents in the 'comment' section.

One authorized Clinician, i.e. working alone

- The clinician will document in both the 'Performed by' and documents in the 'comment' section that they completed an IDC

1. When documenting in the MAR, e.g. Methadone dose

OR

2. When documenting in iView, e.g. Heparin infusion

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Find Item	Critical	High	Low	Abnormal	Unauth	Flag	And	Or	
Result	Comments	Flag	Date	Performed By					
29-Jul-2020									
13:14 PDT	12:35 PDT	12:00 PDT	11:00 PDT	10:00 PDT	09:00 PDT	08:00 PDT	07:46 PDT	06:24 PDT	06:11 PDT
Insulin Infusion									
Heparin Infusion									
Heparin Infusion Protocol									
APTT	second	57	↑						57
PTT Next Due									
Heparin Infusion Rate Change									
IDC Completed									
Heparin Infusion Increased By									
Heparin Infusion Comment									

Example: IDC workflow for Heparin infusions: [CST Cerner Help](#)

- When documenting in another electronic health record, e.g. PARIS, or EMR where you cannot enter a second signature use a narrative note to document who performed the Independent Double Check.

Related Documents

- Lower Mainland Pharmacy Services: [High Alert Policy](#)
- Regional: [High Alert Medications Policy](#)
- BC Children's Hospital and BC Women's Hospital: [High Alert Medications Policy](#)
- BC Children's and Women's Policy: [Independent Double Check for Medication Administration](#)

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Definitions

“Authorized clinicians” meet the following criteria:

1. Within their scope of practice, **and**
2. They have organizational approval to administer, **and**
3. They have the competency to administer, i.e. knowledge, attitude, skill, and judgement required. Additionally:
 - For oncology medication the IDC prior to administration may be performed by a nurse who has been educated to perform the required dosing calculations including Body Surface Area; the nurse administering the medication must be a chemotherapy certified nurse (PHC) or have successfully completed a unit based Antineoplastic Cytotoxic Competency Program (VCH).

“Client” refers to a client, resident or client receiving care.

“Double Check” is a process by which two clinicians work together to verify the accuracy of an order and the medication related care to be delivered. The two clinicians may work together through the process of verification, results are compared and discrepancies, if any, must be resolved before any action is taken, e.g. transcribing, preparing or administering.

“Independent Double Check” (IDC) is a process by which two clinicians work separately to verify the accuracy of the order and medication related care to be delivered. The two clinicians perform the verification process independent of one another, without assistance from each other and without knowledge of their steps followed. Once verifications are complete, results are compared and discrepancies, if any, must be resolved before any action is taken.

“Discrepancies” are when the results from the Independent Double Check are not congruent. When this occurs, care must not proceed until the discrepancy is resolved.

“High-Alert Medications” are drugs that bear a heightened risk of causing significant client harm when used in error. Although mistakes may or may not be more common with these drugs, the consequences of an error are clearly more harmful to clients.

“Standard Checking Procedure” includes the completion of the Seven Safety Checks (Rights of Medication Administration: right client, drug, dose, route, time, reason and documentation).

“Stop” is the action of ending the process of a medication infusing, i.e. turning off the infusion pump or clamping a gravity infusion or disconnecting the infusion from the client’s infusion connection port.

“VPP” is an acronym for Vancouver Coastal Health Authority, Providence Health Care, and Provincial Health Services Authority.

Appendix A: VPP Adult List: Medications that must be Independently Double Checked

<p>VPP Adult list of medications that must be Independently Double Checked prior to administration.</p> <ul style="list-style-type: none"> Clinicians are to refer to the DST – Independent Double Check of Specific Medications for direction on when an IDC is required prior to administration. Clinicians are to consider requesting an Independent Double Check for a medication whenever encountering uncertainty or unfamiliarity while prescribing, dispensing and/or administering a drug, particularly the first time.
<p>Alteplase</p> <ul style="list-style-type: none"> IV route <p>Exceptions- Intra cannula dwells</p>
<p>BC Cancer High Alert Oncology Medications List</p> <ul style="list-style-type: none"> all parenteral routes
<p>Diacetylmorphine</p> <ul style="list-style-type: none"> all routes
<p>Heparin</p> <ul style="list-style-type: none"> IV route
<p>Hydromorphone</p> <ul style="list-style-type: none"> all routes - 50mg/mL concentration (injectable)
<p>Insulin</p> <ul style="list-style-type: none"> IV route
<p>Ketamine</p> <ul style="list-style-type: none"> IV route
<p>Lidocaine</p> <ul style="list-style-type: none"> IV route
<p>Methadone</p> <ul style="list-style-type: none"> oral route (liquid)
<p>Methotrexate</p> <ul style="list-style-type: none"> all routes
<p>Midazolam</p> <ul style="list-style-type: none"> subcutaneous infusions
<p>Opioids</p> <ul style="list-style-type: none"> subcutaneous infusions.
<p>Tenecteplase</p> <ul style="list-style-type: none"> IV route
<p>All Medications</p> <ul style="list-style-type: none"> intrathecal, epidural, perineural routes
<p>All Medications</p> <ul style="list-style-type: none"> PCA IV route

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