

You are called for a 74 year old female patient who tripped on a carpet and rolled over on her ankle. Upon your arrival, the patient's ankle is swollen and she states that she is unable to weight bear. You splint the ankle, apply ice and assist with relaxation techniques to reduce the patient's discomfort. As you ready the patient for transport she remains in moderate discomfort so you consider her for pain management. While your partner is obtaining a set of vitals, what is your next step for consideration of your treatment plan? If you said, take out your medical directive and verbalize your Medication Safety Cross-Check, you are correct!

As you will see from the infographic below and what will be a focus at the upcoming APR there is an emphasis on the Medication Safety Cross-Check. This is a thorough way of completing the "5 Rights" of medication safety and was created with the assistance of front line Paramedics.

When patient care concerns arise, the common precipitating factor is a lack of communication between providers. This tool was created to highlight the communication that needs to occur to complete the "5 Rights" as intended.

Verbalizing the "Right Patient" and "Right Directive" confirms the conditions under the directive in your book or app. For the case above, the patient would meet all conditions for acetaminophen, ibuprofen and morphine with consideration to use ketorolac if the patient was unable to take oral medications. The patient reports no nausea or vomiting or swallowing difficulties and is able to sit upright to take the medication therefore acetaminophen and ibuprofen rather than ketorolac would be an option for your patient.

Verbalizing the "Right Medication" confirms what medication you want to give based on the indications in the directive as well as the concentration. Ask your partner to verify what is on the label of the medication. You hand your partner a package of acetaminophen and ibuprofen to check the medication name, dose and expiration date. Your patient has moderate pain from trauma to her ankle which meets the indications for both acetaminophen and ibuprofen. If you are an ACP crew, morphine could also be a consideration based on the indications.

Verbalizing the "Right Dose" should be verified with the directive and calculated and confirmed together. Remember to use dosing charts to act as verification if available. The acetaminophen dose for this patient is 960-1000 mg and the ibuprofen dose is 400 mg.

Verbalizing the "Right Route" should be verified with the directive and the contraindications and vitals should be reviewed. Both acetaminophen and ibuprofen is given by mouth (PO) and through the contraindications you discover that the patient is on Eliquis (an anticoagulant) so they are no longer a candidate for ibuprofen.

The final check to confirm the "Right Time" is the opportunity to pause and be sure. Ask "is there any reason that I should not administer this medication?" You agree together that the patient can receive 1000 mg of acetaminophen PO. You administer the medication and continue to manage and monitor your patient until call completion.

With the upcoming APR, you will see a video that walks through a case using this Medication Safety Cross-Check. The case is in real time to show that the whole check can be completed when time is of the essence. The video also provides valuable feedback on how to perform the Medication Safety Cross-Check when your partner is not able to actively participate (ie. when they are driving and you are in the back of the ambulance) as well as other great discussion surrounding medication safety and how to mitigate risk by using effective communication and the tools you have available to you.

MEDICATION SAFETY CROSS-CHECK



1 VERBALIZE

"MEDICATION SAFETY CROSS-CHECK"

RIGHT PATIENT & DIRECTIVE

WE ARE CONSIDERING
WHAT DIRECTIVE &
WHAT MEDICATION

OPEN THE DIRECTIVE

CONFIRM THE CONDITION

2 VERBALIZE READ CONFIRM

RIGHT MEDICATION

WHAT MEDICATION DO I
HAVE AND THE
CONCENTRATION

COMMUNICATE OUT LOUD
AND CONFIRM TOGETHER
THE INDICATION

3 COMMUNICATE CALCULATE

RIGHT DOSE

WHAT IS THE PATIENT'S
AGE & WEIGHT

WHAT IS THE APPROPRIATE
DOSE AS PER THE DIRECTIVE

CALCULATE AND CONFIRM
TOGETHER

4 CONFIRM REVIEW

RIGHT ROUTE

COMMUNICATE AND REVIEW
DIRECTIVE

CONFIRM VITALS AND ROUTE

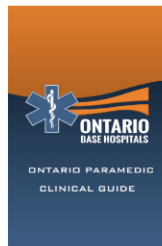
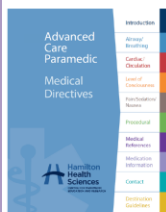
NO CONTRAINDICATIONS

5 PAUSE COMMUNICATE

FINAL CHECK / RIGHT TIME

IS THERE ANY REASON WE
SHOULD NOT ADMINISTER
THIS MEDICATION?

BE SURE EVERY TIME



Dose (0.01 mg/kg) is rounded to the nearest 0.05mg
Use a 1 mL syringe

AGE	WEIGHT	DOSE (mg)	VOLUME (mL)
3 months	5 kg	0.05 mg	0.05 mL
6 months	8 kg	0.08 mg	0.10 mL
9 months	10 kg	0.10 mg	0.10 mL
1 year	12 kg	0.12 mg	0.10 mL
2 years	14 kg	0.14 mg	0.15 mL
3 years	16 kg	0.16 mg	0.15 mL
4 years	18 kg	0.18 mg	0.20 mL
5 years	20 kg	0.20 mg	0.20 mL
6 years	22 kg	0.22 mg	0.20 mL
7 years	24 kg	0.24 mg	0.25 mL
8 years	26 kg	0.26 mg	0.25 mL
9 years	28 kg	0.28 mg	0.30 mL
10 years	30 kg	0.30 mg	0.30 mL
11 years	32 kg	0.32 mg	0.30 mL
12 years	34 kg	0.34 mg	0.35 mL
13 years	36 kg	0.36 mg	0.35 mL
14 years	38 kg	0.38 mg	0.40 mL
Adult	50 kg	0.50 mg	0.50 mL

Bronchoconstriction Medical Directive

An Advanced Care Paramedic may provide the treatment prescribed in this Medical Directive if authorized.

INDICATIONS

Respiratory distress
AND
Suspected bronchoconstriction

CONDITIONS

Salbutamol	Epinephrine
AGE: N/A	AGE: N/A
LOA: N/A	WEIGHT: N/A
HR: N/A	LOA: N/A
RR: N/A	RR: N/A
SBP: N/A	RR: BVM ventilation required
Other: N/A	SBP: N/A
	Other: Hx of asthma

CONTRAINDICATIONS

Salbutamol	Epinephrine
Allergy or sensitivity to salbutamol	Allergy or sensitivity to epinephrine

TREATMENT

Patient	Drug	Dose	Route	Time
Consider salbutamol:				
Weight <25 kg	Route	Route	Route	Route
	MDI*	NEB	MDI*	NEB
Weight ≥25 kg	Route	Route	Route	Route
	MDI*	NEB	MDI*	NEB
Dose	Up to 600 puffs (6-12 puffs)	2.5 mg	Up to 800 puffs (8 puffs)	5 mg
Max. single dose	600 mcg	2.5 mg	800 mcg	5 mg
Dosing interval	5-15 min. PRN	5-15 min. PRN	5-15 min. PRN	5-15 min. PRN
Max. # of doses	3	3	3	3

* 1 puff=100mcg

Consider epinephrine:	Route
	IM
	Concentration
	1 mg/mL = 1:1,000
Dose	0.01 mg/kg**
Max. single dose	0.5 mg
Dosing interval	N/A
Max. # of doses	1

**The epinephrine dose may be rounded to the nearest 0.05 mg.

CLINICAL CONSIDERATIONS

- Epinephrine should be the 1st medication administered if the patient is apneic. Salbutamol MDI may be administered subsequently using a BVM/MDI adapter.
- Nebulization is contraindicated in patients with a known or suspected fever or in the setting of a declared febrile respiratory illness outbreak by the local medical officer of health.
- When administering salbutamol MDI, the rate of administration should be 100 mcg approximately every 4 breaths.
- A spacer should be used when administering salbutamol MDI.