



### Advisory 21-04: Medication Cross Check

To: All Providers

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Every system is perfectly designed to produce the results it gets and medication error is no exception. The out-of-hospital environment is at high risk for medication error. Medication errors are the product of cognitive errors, procedure errors, and also teamwork errors. We can reduce all three by integrating the use of dosing aids, developing good procedural habits, and using our team to double-check our work.

To that end, the Medication Cross Check is a process that uses verbal and visual verification as a final check prior to medication administration. The Algorithm can be found [here](#) and is accompanied by a [training curriculum](#) with links to an overview and procedural videos as well as practice scenarios for agency level training.

The Medication Cross Check represents a best practice for medication administration and should be used every time a medication is administered.

With any questions do not hesitate to contact this office.

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**Medication Administration Cross Check: A MLREMS Regional Patient Safety Initiative**  
Training Curriculum

**Intended Learner:** The training provided by this curriculum is intended for *any EMS provider involved in patient care at any level.*

**Learning Objectives:**

Discuss the system factors contributing to medication errors in the out-of-hospital environment.

Review best practices to reduce medication errors, including dosing aids and good procedural habits, including the performance of medication administration crosscheck.

Define and describe the medication administration cross check process.

Demonstrate the use of a medication administration cross check process in a variety of clinical scenarios.

**Part 1: Didactic and Procedure Videos**

*These videos can be reviewed asynchronously or be viewed together as the introduction to group training exercises.*

[Introductory video](#)

Duration: 8 min 30 sec

This video reviews the system factors that lead to medication errors, methods to reduce medication errors, and introduces the concept and procedure of a medication cross check to reduce these errors.

**Procedure videos:** *It is highly recommended that providers of all levels watch all four videos to gain familiarity with the process in a variety of clinical situations.*

[BLS providers performing crosscheck](#)

Duration: 45 sec

[ALS crosscheck with BLS provider](#)

Duration: 2 min 40 sec

[Single provider](#)

Duration: 1 min 10 sec

[Crosscheck for IV drips](#)

Duration: 3 min 15 sec

**Part 2: In person practice of the Medication Cross Check process**

Duration: Variable, depends on number of providers

The medication administration cross check process should be practiced by providers of all levels in person and with each other. As a resource, we recommend printing or having access to a copy of the [MLREMS medication crosscheck algorithm](#). Example practice scenarios and evaluation rubrics are provided below. Simulated medications are an essential part of the practice process as providers should practice drawing up and verifying medications. Agencies are welcome to develop their own scenarios.

## **Practice scenarios:**

ALS Scenario: You are dispatched to a 5 year old with seizure. Per mother, patient has a history of epilepsy and has been seizing for 10 minutes. She attempted rectal diazepam already without effect. VS HR 160 SpO2 92% on oxygen applied by your partner. Pt is actively seizing.

### Tasks

- (1) Decide on your management plan.
- (2) Perform a medication cross-check.
  - a. With a partner (BLS)
  - b. Against a checklist

BLS scenario: You are dispatched to the elementary school for a child with rash. You arrive to find an 5 yo child with rash, facial swelling and wheezing on lung exam.

- (1) Decide on treatment plan.
- (2) Perform a medication cross-check
  - a. With a partner.
  - b. Against a checklist

**Evaluation Rubrics:**

<b>Primary (Administering) Provider</b>	<b>Performed?</b>
States "Med Check" to signal initiation of the Medication Cross Check process	
States Drug Name and Reason for Administration	
States Dose, Route and Rate of Administration	
Confirms drug concentration and makes vial visible for visual inspection by secondary provider prior to drug administration	
Communicates clearly and effectively	

<b>Secondary Provider</b>	<b>Performed?</b>
States "Ready" to confirm that they are ready to start the Medication Cross Check process	
Asks about allergies or adverse reactions.	
Asks about drug quantity to be administered	
Visually inspects vial when offered by primary provider before giving final go ahead"	
Communicates clearly and effectively	



# Medication Safety Cross-Check



“Med Check”



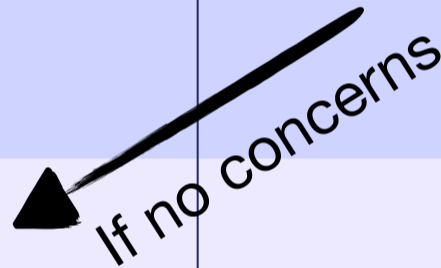
“Ready”

“Going to Give” ...

Drug Name  
Reason



“Concern for allergy or side effects?”



“Going to Give” ...

Dose  
Route  
Rate



Quantity?

Drug concentration & volume or # tablets to be administered



“Go ahead”

[visual inspection of vial by second provider (preferred if safe to do so) or primary provider]

