



MPDS

Medical Priority Dispatch System



The Medical Priority Dispatch System

The Provincial Ambulance Communications Centres are moving to a new triage algorithm known as MPDS (the Medical Priority Dispatch System). This system is already in use in several ambulance communications centres across the Province of Ontario, and this transition changes the way ambulance resources are assigned. The **Lindsay Ambulance Communications Centre** (CACC) will be transitioning to the new system **March 26, 2025**.

This includes Northumberland County, Kawartha, Haliburton, and Peterborough.

*** Kingston CACC – February 5 2025.**



A group of people are seated around a long table in a modern office or meeting room, engaged in a discussion. The room has a high ceiling with exposed ductwork and large windows. The image is partially obscured by a blue header on the right.

How MPDS Works

MPDS is designed to prioritize ambulance responses based on how time sensitive the patient's need for hospital treatment is; the acuity level of the patient determines the response priority. With this new system, there are **36** protocols (chief complaint) with **over 2000 determinant codes**. The determinant codes identify the problem type, the acuity of the medical emergency, and specific details associated with the chief complaint.

With MPDS, the questions we ask of all callers have changed, as well as our response priorities. No longer using the Code 1-4 language, MPDS utilizes colour-based priorities that reflect the patient's level of acuity and the resources required for that patient.

There are 5 new call priorities with purple being for the highest acuity patients and green for the lowest acuity patients.

PURPLE

RED

ORANGE

YELLOW

GREEN

The MPDS call processing structure will lead the Ambulance Communications Officer to a specific determinant code based on the information gathered through key questioning. MPDS questions are continuously evaluated by the International Academy of Dispatch and approved by Medical Directors.

There are 5 components to a MPDS call:

- **Case Entry** is where the **location** is obtained and determines if the patient is **critically ill or injured**.
- **Key Questions** are where the patient's medical complaint is entered into the CAD and medically relevant questions are asked to determine the acuity of their illness or injury. The "Determinant code" is created here, and will identify the **problem type, the level of emergency, and specific details associated with the complaint**.
- **Diagnostic Tools** are tools the call taker will use to accurately evaluate an acute medical emergency
- **Dispatch Life Support** instructions are given to aid the patient until paramedics arrive
- **Case Exit** is where the call taker provides final instructions and ends the call.

Detailed Key
Questioning



Scientific
Algorithm

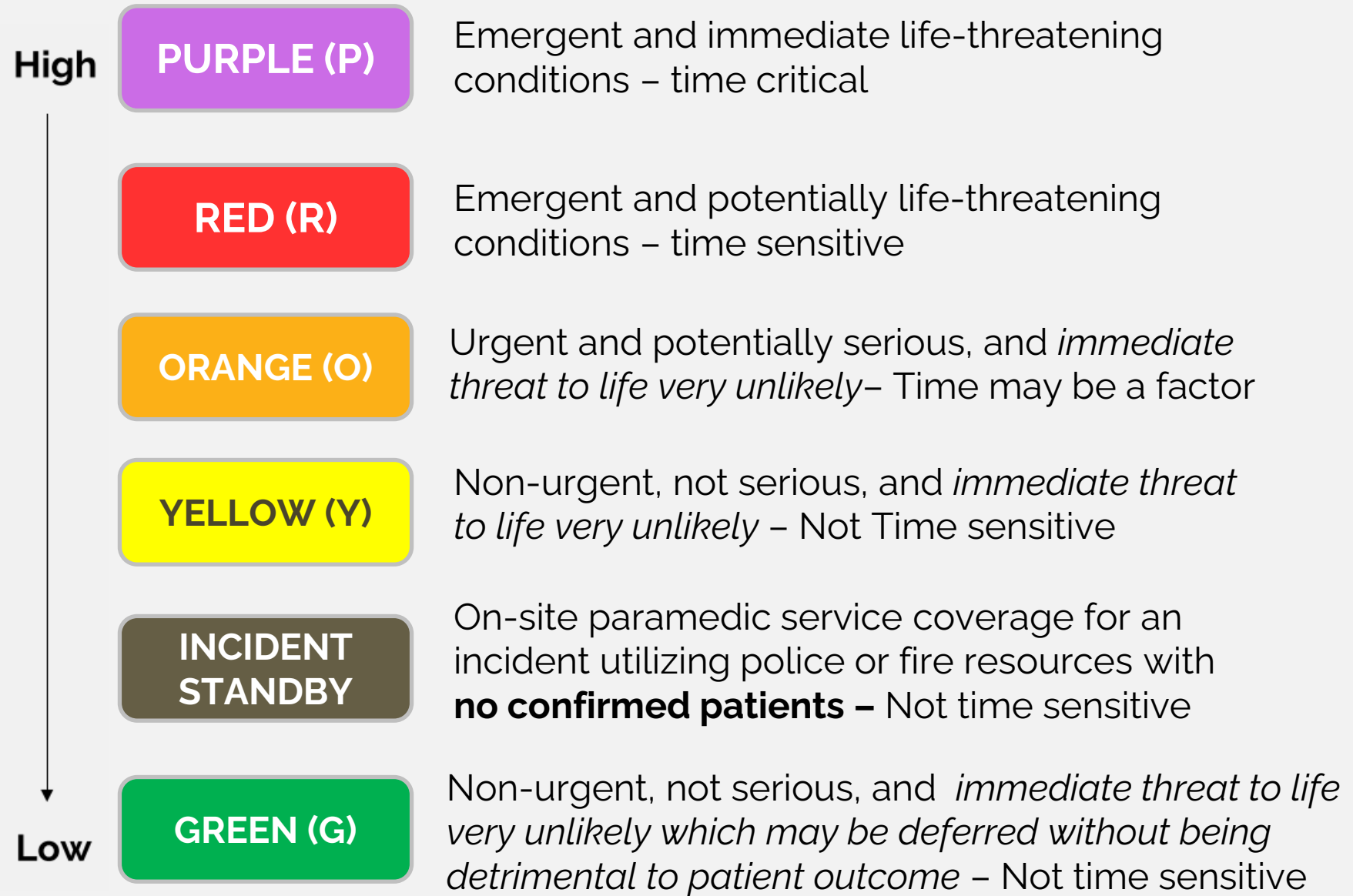


Accurate
Determinate
Code and Priority

MPDS

Priorities In Dispatching

With the change to line of questioning and prioritization we've also updated how we assign our resources, along with better definitions of each priority.



Low acuity calls have 'wait times' that are determined by the Paramedic Service

Prioritization Improvements

MPDS once implemented has demonstrated a reduction of Code 4 – “lights and siren” responses out. MPDS has proven to decrease the number of Code 4's dispatched.

Benefits-

- Better use of resources – available to respond to triaged high priority calls
- Safer response for the paramedics and public (decrease in lights and siren responses)
- Ambulance availability for higher priority calls

Northumberland Paramedics:

2023 – CODE 4 dispatched = 13,099

Return Code 4 = 1,323

2024 – CODE 4 dispatched = 9,875

Return Code 4 = 1,180



Changes in Dispatching

- ❑ Response plans are created by the Paramedic service and reflect their resources & deployment plan.
- ❑ MPDS will use the **Closest Unit** response plan model for dispatching higher acuity responses (**PURPLE** & **RED**) incidents. *remains seamless coverage
- ❑ When responding to a **RED** incident (lights and sirens), paramedics may be **reassigned** to a **PURPLE** incident as the closest unit.
- ❑ When responding to a call in a neighbouring Paramedic Service's response area, they are only required to respond to **RED** and **PURPLE** incidents
- ❑ Your paramedics will need to have an understanding of the new colour levels in the event they are responding to a call in an MPDS area, as well as what a determinant code is.
- ❑ ACOs will use determinant codes over the radio but will include problem type and additional information during the transmission. Out of area Paramedics are not expected to translate determinant code language.

Incident Sharing / Cross Border Responses

Providing **seamless service** across the Province means ambulances can be expected to 'cross borders' or respond to calls in a neighbouring area. The CACCs determine the closest vehicle and send that vehicle to respond to the request for service. MPDS changes how and which calls can be assigned to neighbouring ambulance resources.

With the implementation of CAD 5, C2C (CAD to CAD) was introduced; C2C is the ability for each cacc's CAD to 'speak' to each other. One feature of C2C is unit synchronization; this is used by bordering CACCs to see the general status and location of neighbouring ambulances, preventing the 'false starts' when each cacc starts a truck and cancels one of at some point while enroute to the call.

Calls are shared between neighbouring CACCs/Paramedic Services only if call is high acuity, and another Paramedic Service ambulance is showing closest.

If a low acuity call is near/at the border the call will not be shared with your centre due to not meeting the criteria for an incident share.



C2C Incident Shares and Cross Border Responses

Local policies and agreements may be implemented within your deployment plans that will allow for sharing of these priorities. The table below shows the MPDS and DPCI II priority equivalents

For Incidents in your CACCs catchment area, Incident sharing between centres may occur when the priority is a **PURPLE**, or **RED** for MPDS centres or **Priority 4** in DPCI II centres. Incident sharing generally will not occur if the incident Priority is an **ORANGE**, **YELLOW**, **GREEN** or Priority 3 and below.

DPCI II Priority	MPDS Equivalent Priority
Code 4 (Card 42 & 43- Cardiac Arrest)	PURPLE
All CODE 4 (except Card 42 &43)	RED
	ORANGE
CODE 3	YELLOW
	GREEN

Vehicle Assignment under MPDS

When your vehicle transports a patient into another CACC's catchment area there are new rules for vehicle assignment.

- If your vehicle is 'available' in another catchment area it is only assignable to **Purple** or **Red** priority calls; the initial assign feature in the CAD will identify it as the **closest transport** unit.
- If your vehicle is available and the closest, it will be assigned to this request for ambulance service. Any additional resources will be assigned from the 'home' CACC's resources; there will be no request to your centre for a 2nd, 3rd ambulance resource. This is subject to local policies, agreements and deployment plans, and exclusive of an event that overwhelms the home CACC's capabilities
- Your vehicle will not be considered for **Orange**, **Yellow** or **Green** priority responses in a neighbouring catchment area.

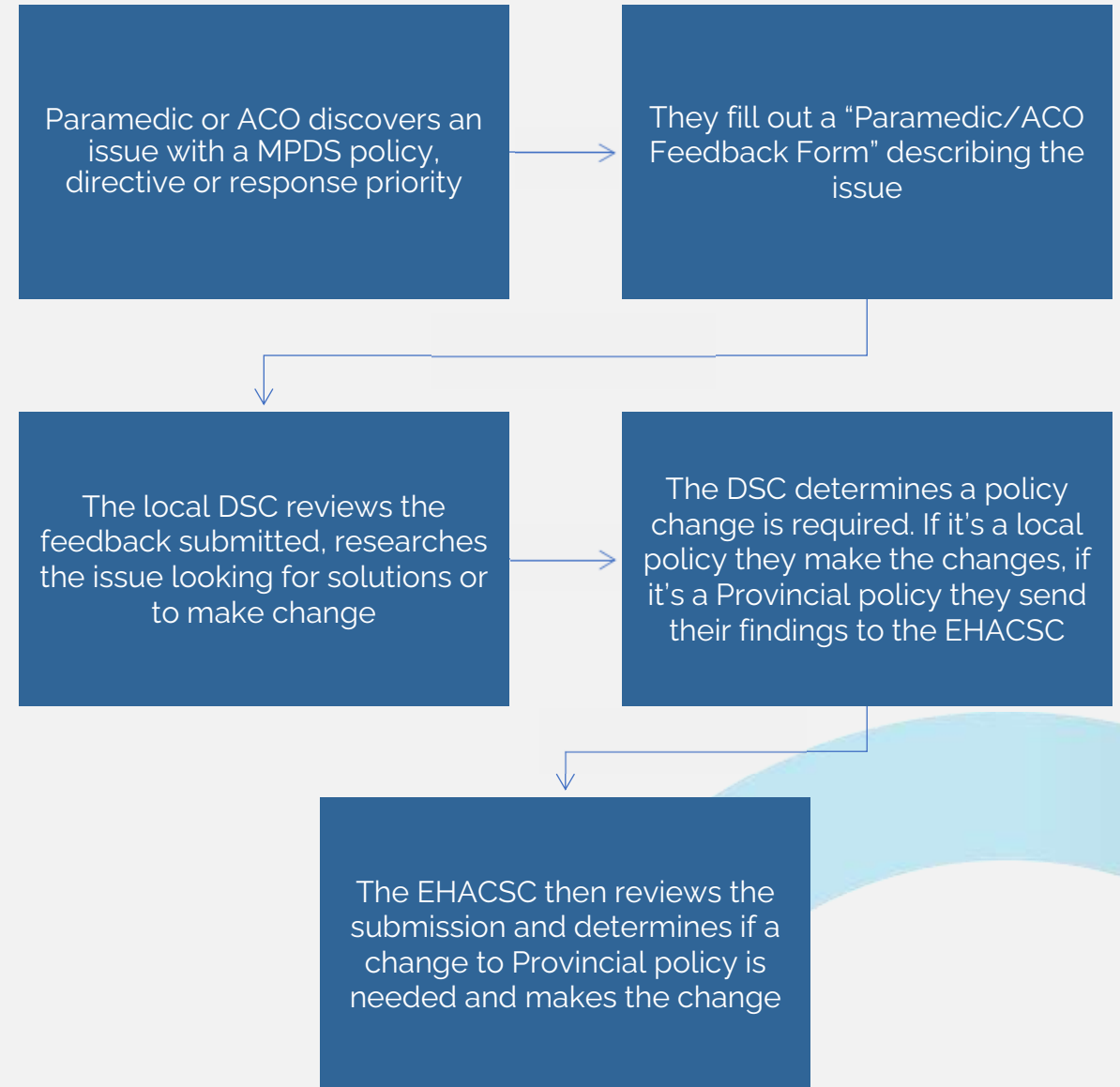


The Dispatch Steering Committee

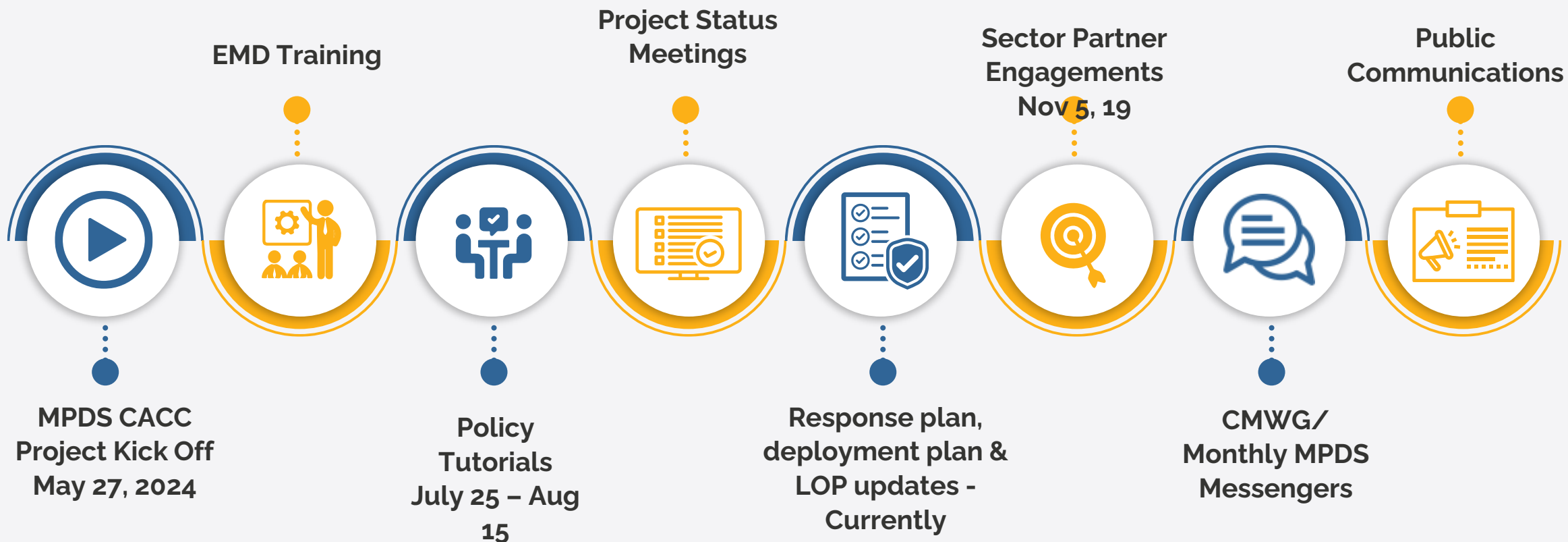
The Dispatch Steering Committee (DSC) is a committee jointly lead by the CACC Manager and Paramedic Service Chief(s) whose mandate is to review concerns with MPDS policy and directives.

The committee also includes the CACC Quality Programs Officer, the Medical Director, a frontline paramedic and an ACO.

This chart shows a high-level overview of the process followed; once the DSC determines the issue needs resolution at a Provincial level it is sent to the EHACSC- Emergency Health Ambulance Communications Steering Committee.



MPDS Transition Overview



The Medical Priority Dispatch System

MPDS Team - Ministry of Health

Dr Michael Feldman – Sunnybrook Regional Base
Hospital Director and Central Ambulance
Communications Centre Medical Director

Lisa Kellett – MPDS Project Change Management
Lead

Neil Kaspersen – MPDS Business Project Manager

