MIGRATING FROM PROTOCOLS TO TREATMENT GUIDELINES

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GO CANADA GO!!
Innovation?

or

Death of a thousand cuts??
Why Change??

• **Strict protocols force a number of behaviours:**
  
  • Emphasis on **protocols**
  
  • Finding a way to make the patient fit the protocol
  
  • Fear of being caught “out of protocol”
  
  • “Do what’s right, write what’s correct”
2.3.4.1 ANAPHYLAXIS

INDICATIONS

- Patient with suspected anaphylaxis including all of the following:
  - Signs of anaphylaxis
  - History of an allergy or exposure to an allergen
  - Unstable, decreased LOC, or hypotension (BP <80 mm Hg) or respiratory distress.

CONTRAINDICATIONS

- Diphenhydramine (Benadryl) is contraindicated in patients with a known allergy to Diphenhydramine.
- Tablets are contraindicated in unconscious patients.

Before initiating the Anaphylaxis protocol, you must have done the following:

- Completed a primary survey;
- Obtained a history sufficient to establish a history of an allergy;
- Obtained signs and symptoms of an allergic reaction or anaphylaxis;
- Obtained a baseline set of vital signs.

Administer 0.01 mg/kg epinephrine 1:1000 SC (to maximum 0.3 mg)

Patients ≥ 12 years of age
Administer 25 - 50 mg
Diphenhydramine PO (2 - 4 chewable tablets)

For patients 6-11 years of age
Administer 20 mg
Diphenhydramine PO (2 chewable tablets)

For patients 2-5 years of age
Administer 12.5 mg
Diphenhydramine PO (1 tablet chewable)

Initiate transport

Continue with assessment and treatment

If unstable within 10 minutes of administration of initial epinephrine:
- Contact EP for orders regarding repeat previous dose of epinephrine SC

Footnotes:

1. If anaphylaxis is anticipated because of prior history, nature of exposure or patient's condition you may consider contacting the EP for advice.
2. Unstable, altered mental status, hypotension, shock, and/or respiratory distress.
3. The thigh is the preferred site for administration of the subcutaneous epinephrine. In cases where the thigh is not accessible or aspirates the epinephrine may be used.
4. Diphenhydramine causes drowsiness, dizziness, dryness of the mouth, nervousness and nausea. Alcohol may potentiate these effects and increase the risk of accidental injury. Advise patient of this.
5. Diphenhydramine PO tablets are not to be used for children < 5 years of age.
“Drat. Your bolts are metric, but my tools aren’t.”
There has got to be a better way to do things
Goals

• Need to allow paramedics to use their critical thinking skills and do what the patient needs in the moment

• Need to provide good tools for the paramedics to do the job

• Need to support paramedics through education

• Need to identify misses, near misses/good catches....and....
It's time to raise the bar
What does this mean to paramedic practise?

• **New “Flexibility” in making choices or decisions about the care they provide their patients**

• **All...some...none....**
Patient Safety
How did we do it?

• **Ask paramedics** - surveys and email campaign

• **Decide on broad and tighter topics** (what to keep, what to add)

• **Plan of action and implementation strategy**
NUTS AND BOLTS

• Topics divided between medical directors

• Teams of paramedic volunteers facilitated by an LMC. One topic/team.

• The LMC would work with the team to find evidence and best practise in other services and discuss as a group
MORE...

- Each team wrote up their recommendations
- RMD edited and summarized
- PMLC ranked by order of importance for implementation
- Project manager edited further to insure consistency of language
MORE..

• THREE PHASES TO ROLLOUT:
  • NO CHANGE + “TG I”
  • CHANGE BUT SAME TOPIC
  • NEW TOPICS +”TG II”
Medical Principles

Intervention Guidelines

\[
\text{British Columbia Ambulance Service} \\
\text{Medical Principles} \quad \boxed{\quad \text{Intervention Guidelines} \quad \text{Treatment Guideline}}
\]
Hypo/Hyperglycaemia

Patients with a history of type I and type II diabetes are at risk of developing hypo or hyperglycaemia.

In the case of hypoglycaemia, their history frequently reveals an imbalance of insulin or oral hypoglycaemics by:

- An overdose of insulin or oral hypoglycaemics
- Insulin administration was not followed
- Missing a meal
- A recent change of diabetic medication
- Exertion without matching food intake

In the case of hyperglycaemia, history may reveal:

- Recent infection or illness
- Gradual onset of symptoms of dehydration, lethargy, confusion
- Excessive urine output
- Insulin dependent diabetics often smell ketotic (like ketones)
- Non-insulin dependent diabetics can have high blood sugars, dehydration but no ketosis

Guiding Principles

Measuring capillary blood glucose will guide treatment.

Symptomatic hypoglycaemia does not occur unless glucose is less than 4 mmol.

Hyperglycaemic symptoms are rare if glucose is less than 18 mmol but many patients tolerate much higher levels without any symptoms.

In hypoglycaemic patients who can still comply with directions, administering oral glucose may be enough to increase their level of consciousness and avoid unnecessary IV initiation.

All patients receiving I.V. Dextrose require 50 mg of Thiamine I.V. unless contraindicated.

Although many hypoglycaemic diabetics decline transport following successful treatment, care must be taken to ensure a reasonable underlying cause of the event has been identified. E.g. the event is clearly attributable to a late or missed meal in the face of a normal dose of insulin or the patient's physical activity has been higher than usual in the period prior to the incident. These patients should never be left in the absence of another responsible adult.

Type II diabetics on oral hypoglycaemic agents who require treatment in the field should be transported to hospital as this is an extraordinary event and is very likely to recur.

Beware the otherwise healthy patient with a history of recent illness who is unconscious, hyperglycaemic and hypotensive. These patients may be as yet undiagnosed type II diabetics who have developed hyperglycaemic non-ketotic coma. These patients are at risk of dying and need careful management in the emergency department.
Symptomatic Hypoglycaemia

**EMR/PCP Interventions**

<table>
<thead>
<tr>
<th>Correct Hypoglycaemia</th>
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<tr>
<td>Glucogel</td>
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<td>1 package applied to oral mucosa</td>
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**PCP only beyond this point**

- Glucagon
  - 1 mg SC
  - If IV unattainable or for persistent hypoglycaemia

**PCP IV only beyond this point**

- Dextrose,
  - 10 – 25 gms (100- 250 cc) D10W IV
- Thiamine
  - 50 mg IV
Reaction

• Most love the idea

• Some have difficulty making the leap - need to maintain access to protocols
Challenges

• Understanding “scope of knowledge” vs “scope of practice”

• The dreaded nitro issue......
Is it working??

• WE think so....

• We’ll let you know as we know....