

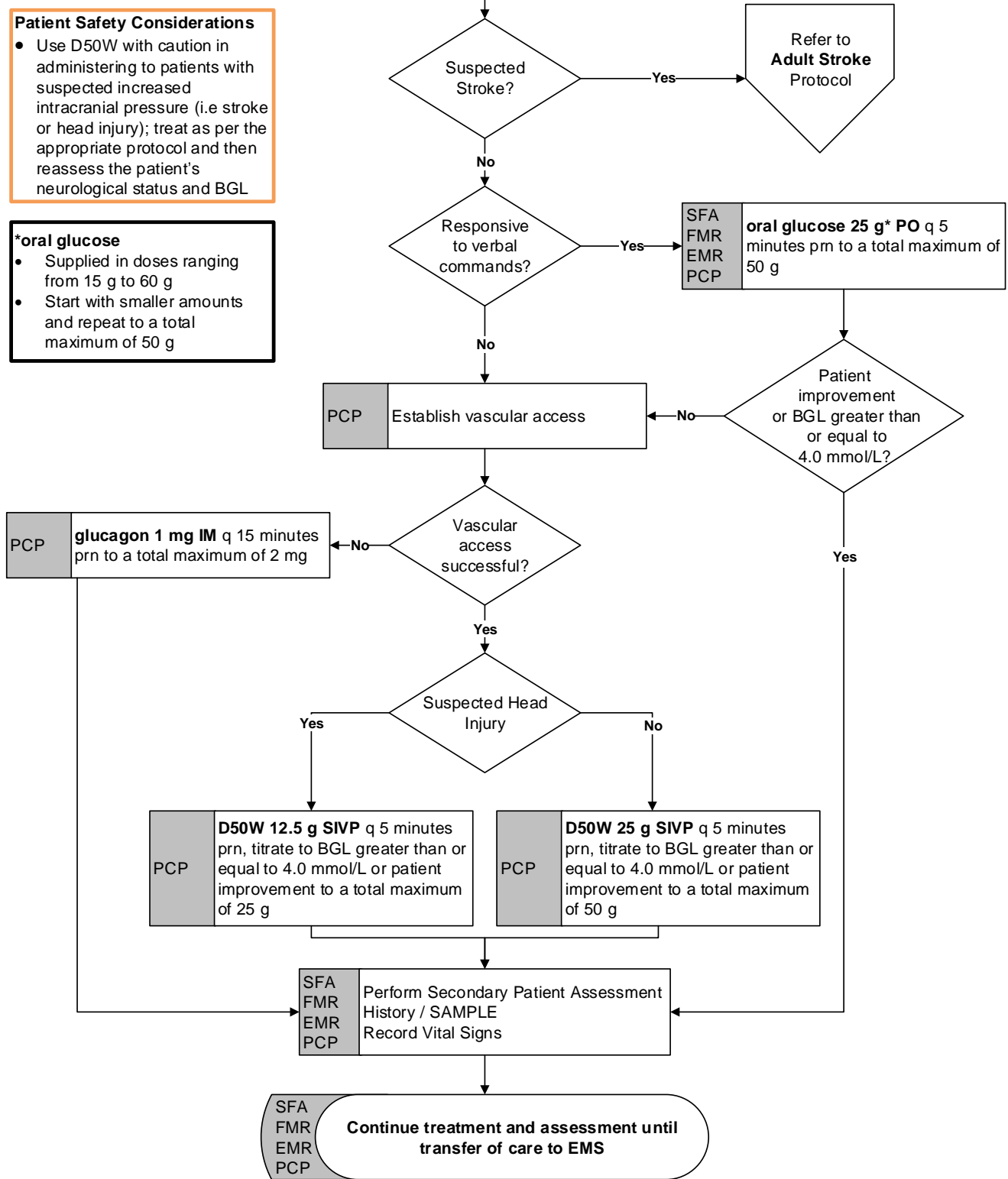
Standard Approach and Ongoing Assessment
SFA
FMR
EMR
PCP

Patient Safety Considerations

- Use D50W with caution in administering to patients with suspected increased intracranial pressure (i.e stroke or head injury); treat as per the appropriate protocol and then reassess the patient's neurological status and BGL

***oral glucose**

- Supplied in doses ranging from 15 g to 60 g
- Start with smaller amounts and repeat to a total maximum of 50 g



Information

In a diabetic emergency, giving sugar to someone with low blood glucose can be a life saving measure but providing sugar to someone with high blood glucose will have little negative effect. If in doubt, provide the patient with sugar. If trained and equipped to measure a blood glucose level (BGL) utilizing a blood glucometer, a BGL should be acquired early. A BGL is considered one of the core 5 vital signs in patients that have suspected hyperglycemia, hypoglycemia, seizures, or altered level of consciousness. Hypoglycemia is defined as a BGL of 4.0 mmol/L or less.

A conscious patient who is able to follow instructions can be encouraged to drink or eat something sweet but must have no serious illness and able to swallow. If this is not the case provide comfort measures until EMS arrival.

Etiology

In the vast majority of cases, clinically significant hypoglycemia occurs in diabetic patients who are insulin dependent or oral hypoglycemic dependent who have:

1. Taken more than the prescribed amounts of insulin or oral hypoglycemic medication
2. Taken prescribed amounts of medication, but have not eaten sufficient amounts of food or have not eaten on schedule
3. Taken prescribed amounts of medication but engaged in greater than usual amounts of physical activity
4. A concurrent illness / Increased metabolic stress such as infections, fevers
5. Genetic / metabolic disorders
6. Malnutrition
7. Liver failure

The following drugs may cause significant hypoglycemia:

1. Insulin
2. Acetylsalicylic acid (ASA)
3. Alcohol

4. Oral hypoglycemic medications, examples:

- Metformin (Glucophage)
- glyBURIDE (Diabeta)
- Repaglinide (Prandin)
- GLICLAzide (Diamicon)

5. Injectable hypoglycemic medications, examples:

- Albiglutide (Tanzeum)
- Exenatide (Bydureon, Byetta)
- Liraglutide (Victoza)
- Pramlintide (Symlin)
- Dulaglutide (Trulicity)

Hypoglycemia may be recognized by the presence of adrenergic signs resulting from the release of endogenous catecholamines in response to the hypoglycemic stress. These signs include pallor, diaphoresis, tachycardia, and tremors; additional signs may include altered mental status, coma, or seizures. Though rare, hypoglycemia may occasionally cause lateralizing neurological symptoms mimicking a stroke.

Fluid Resuscitation

Dextrose is necessary for the normal functioning of undamaged brain tissue. In the presence of suspected head injury or stroke patients, intravenous dextrose should initially be administered conservatively by stopping at 12.5 grams and retesting the BGL. This is to appropriately correct hypoglycemia for the healthy brain tissue, while sparing the unwarranted side effects from cerebral edema due to excessive dextrose.

Treatment

If trained and equipped provide oral glucose.

In the absence of oral glucose prepare a glass of juice (orange/apple) and stir in two tablespoons of sugar. Hand the glass to the patient and encourage them to drink. If unable to comply, do not attempt to force the liquid into their mouth.

In the absence of juice, water/milk with added sugar or soda pop/sports drink with sugar as the main ingredient can be substituted. Avoid diet drinks due to their absence of sugar.