This flyer is intended to provide information on factors that are often associated with increased risk for severe hypoglycaemia (SH), as well as recommendations often associated with reduced risk. The presence of any specific risk factor does not necessarily mean that an individual is at high risk. It is also the case that following any specific recommendation does not necessarily insures that an individual will not experience SH. Other factors relevant to an individual’s situation need to be taken into consideration when assessing risk level and a clinical plan. This is an educational tool and guidance for an initial screening of risk factors and possible recommendations.

**PRESENTING FEATURES TO CONSIDER**

**RISK LEVEL LOW**
- Not on insulin, sulphonylureas (SUs) or glinides
- Hypoglycaemia awareness with classic symptoms (e.g. sweating, trembling) at 3.0 mmol/L or 54 mg/dL
- All episodes symptomatic and self-treated
- Infrequent (< 3x/week) BG levels below target (< 3.9 mmol/L or < 70 mg/dL)
- No episodes of SH in the past year

**RISK LEVEL MOD**
- On insulin and/or SUs or glinides
- More frequent (> 3x/week) episodes, but > 3 mmol/L or 54 mg/dL
- Reduction in classic warning symptoms for low blood sugar
- A significant episode (< 3.0 mmol/L or 54 mg/dL) with no symptoms
- One episode of SH in the past year
- Not adjusting insulin for meals or exercise

**RISK LEVEL HIGH**
- Long duration of diabetes/insulin use
- BG < 3 mmol/L or 54 mg/dL ≥ 3x/week
- More than one SH episode in the past year
- Impaired Awareness of Hypoglycaemia (IAH)
- Lack of concern about SH or failure to change high risk behaviours
- Excessive alcohol use
- Older age (> 70), impaired memory or dementia
- Taking other medications that lower BG

**RECOMMENDATIONS TO CONSIDER**

**Encourage patient to:**
- Measure BG when low blood sugar symptoms occur and check for recovery 15 minutes after treatment
- Always carry/keep fast acting carbohydrates
- Take carbohydrate to prevent hypoglycaemia when below target
- Always treat low BG immediately

**Same as for low risk, plus:**
- Increase number of daily BG checks (≥ 4x/day)
- Check BG before driving and during long drives
- Review insulin/medication regimen and patient’s hypoglycaemia knowledge
- Educate patient on hypoglycaemia avoidance and consider referral to a diabetes educator
- Check kidney, thyroid and GI function and other endocrine deficiencies
- Consider education in carbohydrate counting/insulin adjustment
- Prescribe glucagon kit and provide training in use

**Same as for low and moderate risk, plus:**
- Consider changing medications/insulin regimens to lower risk (avoid SUs, glinides and non-analogue insulins, if possible)
- Avoid all episodes (< 3 mmol/L or 54 mg/dL) to restore symptoms
- Prescribe glucagon often so it does not expire and ensure family members/partners are trained to use it
- Educate family on hypoglycaemia prevention/treatment
- Consider continuous glucose monitoring or low glucose suspend devices

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**ADVERSE OUTCOMES OF SH**
- Neuglycopenia, unconsciousness, seizure, injury, car accidents, higher risk for future SH, impaired hypoglycaemia awareness (IAH), possible cardiac arrhythmias, cognitive impairment and increased mortality

**SEVERE HYPOGLYCAEMIA (SH)**
- Episodes of low blood glucose (BG) your patient is unable to self-treat because of impaired thinking or unconsciousness

**THE GOAL**
- Best possible glucose control without SH