INSULIN PRESCRIPTION AND ADMINISTRATION RECORD (IPAR)

DO NOT USE abbreviations 'U' or 'IU' when recording the name of an insulin preparation.

If the usual insulin regimen is unknown, **do not omit insulin but use a suitable substitute** until insulin details are established e.g. prescribe daily or BD isophane in elderly. Use short-acting/intermediate mixture BD in others. Calculate dose as 0.5 units/kg/24hrs and divide between breakfast and evening meal.

Only use intravenous insulin in patients who are acutely unwell, fasting or unable to tolerate fluid and diet. Review monitoring results daily and **avoid hypoglycaemia**.

Patient Name:

CHI Number:

Date of Birth:

(Attach printed label here)

NHS SCOTLAND

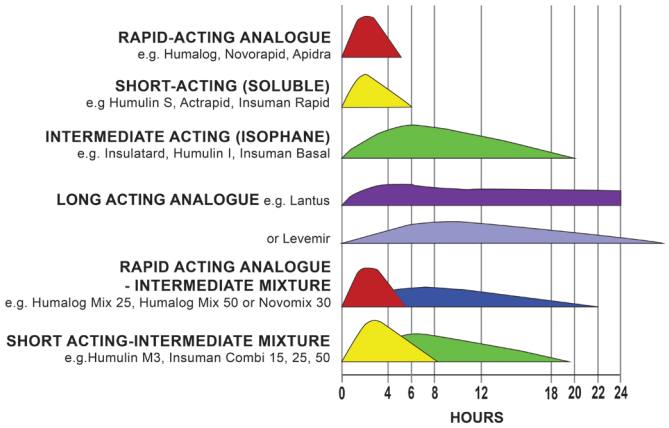
2013 PILOT V2

SUBCUTANEOUS INSULIN PRESCRIPTION

Date	Name of Insulin Preparation [in CAPITALS]	Dose in Units	Time of Administration e.g. before breakfast e.g. at 22.00 hours	Prescribed by	Discontinued by Sign and Date
		units			
		units			
		units			
		units			
		units			
		units			
		units			
		units			
		units			
		units			
		Self-managed by Continuous Subcutaneous Insulin Infusion (CSII)			

TIME ACTION PROFILES

Schematic of common insulin preparations



Schematic adapted and reproduced with permission from figure 2.2 Krentz AJ & Bailey CJ. Type 2 Diabetes in Practice. The Royal Society of Medicine Press. London 2001 © ISBN:1853154822

INSULIN DEVICE DETAILS (note: insulin pen devices are designed for 'self use' only)

Needle Size	4mm ☐	5mm ☐	6mm ☐	8mm ☐	Type of Device:

ONCE ONLY 'STAT' INSULIN DOSE PRESCRIPTION

Caution: Use with care - STAT doses of rapid acting insulin can precipitate hypoglycaemia.

Date	Name of Insulin Preparation	Dose in Units	Time of administration	Prescribed by	Administered by	Time Administered	Reason for STAT dose
		units					
		units					
		units					
		units					

Insulin Administration and Blood Glucose/Ketone Monitoring Record

Coloured areas identify risk - see guidelines for hyperglycaemia and hypoglycaemia overleaf. (BG = Blood Glucose)

Name:

DOB/CHI

Procedure Checklist

INSULIN PRESCRIBING
1. Insulin is prescribed using capital letters.
2. Insulin is prescribed in the legal prescription document.
3. Insulin dose is prescribed without the abbreviation 'u' or 'i.u.'
4. Insulin has been administered at each time it is prescribed.
HYPOGLYCAEMIA MANAGEMENT (IF BG IS DOCUMENTED < 4mmol/L)
1. Treatment for hypoglycaemia is available in the ward.
2. Appropriate treatment was given to the patient.
3. Blood glucose was rechecked in 15 minutes.
4. Patient management and medication reviewed to prevent recurrence of hypoglycaemia.

EXAMPLE

4.7.13.	BREAKFAST			LUNCH			EVENING MEAL			BEDTIME		
Time:	8.00	8.15		12.00			17.15			10.00		
Ketone Level urine/blood										0.0		
BG mmol/L		4.2		6.7			8.9			16.4		
BG < 4mmol/L	3.1											
Insulin name and dose in units	Humalog Mix 25 30 units						Humalog Mix 25 20 units					
Hypoglycaemia treatment	Lucozade before breakfast											
Given by	EL MR						ML MR					

DATE	BREAKFAST			LUNCH			EVENING MEAL			BEDTIME		
Time:												
Ketone Level urine/blood												
BG mmol/L												
BG < 4mmol/L												
Insulin name and dose in units												
Hypoglycaemia treatment												
Given by												

DATE	BREAKFAST			LUNCH			EVENING MEAL			BEDTIME		
Time:												
Ketone Level urine/blood												
BG mmol/L												
BG < 4mmol/L												
Insulin name and dose in units												
Hypoglycaemia treatment												
Given by												

DATE	BREAKFAST			LUNCH			EVENING MEAL			BEDTIME		
Time:												
Ketone Level urine/blood												
BG mmol/L												
BG < 4mmol/L												
Insulin name and dose in units												
Hypoglycaemia treatment												
Given by												

DATE	BREAKFAST			LUNCH			EVENING MEAL			BEDTIME		
Time:												
Ketone Level urine/blood												
BG mmol/L												
BG < 4mmol/L												
Insulin name and dose in units												
Hypoglycaemia treatment												
Given by												

DATE	BREAKFAST			LUNCH			EVENING MEAL			BEDTIME		
Time:												
Ketone Level urine/blood												
BG mmol/L												
BG < 4mmol/L												
Insulin name and dose in units												
Hypoglycaemia treatment												
Given by												

Name: **DOB:** **CHI:**

Coloured areas identify risk - see guidelines for hyperglycaemia and hypoglycaemia overleaf. (BG = Blood Glucose)

DATE	BREAKFAST			LUNCH			EVENING MEAL			BEDTIME		
Time:												
Ketone Level urine/blood												
BG mmol/L												
BG < 4mmol/L												
Insulin name and dose in units												
Hypoglycaemia treatment												
Given by												

DATE	BREAKFAST			LUNCH			EVENING MEAL			BEDTIME		
Time:												
Ketone Level urine/blood												
BG mmol/L												
BG < 4mmol/L												
Insulin name and dose in units												
Hypoglycaemia treatment												
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Ketone Level urine/blood												
BG mmol/L												
BG < 4mmol/L												
Insulin name and dose in units												
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Given by												

DATE	BREAKFAST			LUNCH			EVENING MEAL			BEDTIME		
Time:												
Ketone Level urine/blood												
BG mmol/L												
BG < 4mmol/L												
Insulin name and dose in units												
Hypoglycaemia treatment												
Given by												

Guideline for Monitoring and Managing Glycaemic Control for Inpatients with Diabetes

Aim for Blood Glucose (BG) levels of 4 -10mmol/L in the inpatient setting. Note: this may not be suitable in frail or elderly patients due to the risk of hypoglycaemia. ***Check ketones*** *at diagnosis of diabetes if BG is greater than 15mmol/L and in patients who are acutely unwell. Check ketones in pregnant women who are acutely unwell* ***irrespective*** *of BG level. Blood ketone range is 0 - 8 mmol/L, ketone level above 0.6 mmol/L is abnormal.*

Management of Hyperglycaemia

SITUATION

Blood glucose (BG) levels >10mmol/L increase the risk of osmotic symptoms of diabetes, dehydration and can delay healing. Hyperglycaemia can lead to Diabetic Ketoacidosis (DKA) or Hyperosmolar Hyperglycaemia Syndrome (HHS).

BACKGROUND

Consider causes of high blood glucose levels, such as:

- Infection and/or stress response to illness
- Steroid therapy
- Nutrition eg, supplements, NG Feeding or dietary indiscretion
- Insulin and/or diabetes medication omission/inadequate dose
- Insulin or drug administration at an inappropriate time
- Insulin absorption problem e.g. technique/administration/injection site
- Pancreatic insufficiency/acute pancreatitis

ASSESSMENT

Identify potential cause of elevated BG levels i.e.

- Assess pattern of BG levels e.g. over previous 48 hrs
- Check for signs of infection
- Check insulin/medication prescription, dose, time of administration, food intake, activity
- Check for factors which may affect insulin absorption
- Check credibility of BG monitoring e.g. hand washing prior to testing
- Check ability to self-manage medication
- Check insulin delivery device
- **Check for ketones during acute illness/vomiting and in all pregnant patients**
- Ensure that patients using Continuous Subcutaneous Insulin Infusion (CSII) check pump function, pump programming, infusion set and its site.

RECOMMENDATION

Address the cause(s) of hyperglycaemia.

- If the trend of pre-meal BG levels is >10mmol/L, review medication and clinical status and review treatment.
- If ketone level is >0.6mmol/L refer for urgent medical review
- If ketone level is >0.6mmol/L increase insulin and increase fluid intake
- Review and check BG and ketones 2 - 4 hourly until confirmed ketone free
- Consider adjustment of insulin /medication if steroid therapy is prescribed
- Increase frequency of BG monitoring following treatment change
- Further adjust insulin/medication on an ongoing basis if necessary
- Inform and agree medication change with patient/parent/carer
- **Refer to the Diabetes Team for advice as required**

Management of Hypoglycaemia

SITUATION

Hypoglycaemia i.e. blood glucose (BG) level <4mmol/L is a potentially dangerous side effect of insulin therapy and hypoglycaemic agents e.g. gliclazide, glipizide, glimepiride, glibenclamide. **Hypoglycaemia must be avoided. Prompt treatment is required - see recommendation below.**

BACKGROUND

Consider the causes of low blood glucose levels, such as:

- Inadequate carbohydrate food intake
- Too much insulin and/or oral hypoglycaemic medication
- Reduction or withdrawal of steroid therapy
- Insulin absorption problem e.g. technique/administration/injection site
- Increased activity
- Renal or hepatic impairment or pancreatic insufficiency

ASSESSMENT

Following identification and treatment of hypoglycaemia:

- Assess pattern of BG levels e.g. over previous 48 hours
- Assess recent nutritional intake
- Identify the drugs prescribed that may precipitate hypoglycaemia
- Check insulin/medication prescription, dose, time of administration, food intake, activity
- Check for factors which may affect insulin absorption
- Check ability to self-manage medication if appropriate
- Establish cause of hypoglycaemia and review medication
- Increase frequency of BG monitoring following treatment charge

RECOMMENDATION

Treat hypoglycaemia immediately with 15 - 20 grams of quick acting carbohydrate

- If patient is able to swallow: administer 90 - 120mls Lucozade
- If patient is confused or drowsy but able to swallow: administer 1-2 tubes of glucose gel
- If patient is unconscious/unable to swallow: administer IV Glucose 10% 150ml or 20% 75ml or 1mg IM Glucagon (adults)
- Note: Glucagon is not suitable in malnourished patients, in severe liver disease, or those on oral hypoglycaemic agents
- Provide complex carbohydrate snack promptly e.g. wholemeal bread/toast
- Observe and chaperone patient until recovery is complete
- **Recheck BG in 15 minutes** and repeat treatment if necessary
- **Do not omit insulin:** treat 'hypo' and administer the insulin as prescribed
- Take appropriate action to prevent further hypoglycaemia
- Inform and agree medication change with patient/parent/carer
- Provide appropriate patient education
- **Refer to the Diabetes Team for advice as required**