

# Insulin Administration and Blood Glucose Monitoring Record for Adults in Care Homes (Nursing and Residential)



**Patient Name and Date of Birth:** \_\_\_\_\_

**Type of Diabetes:** \_\_\_\_\_

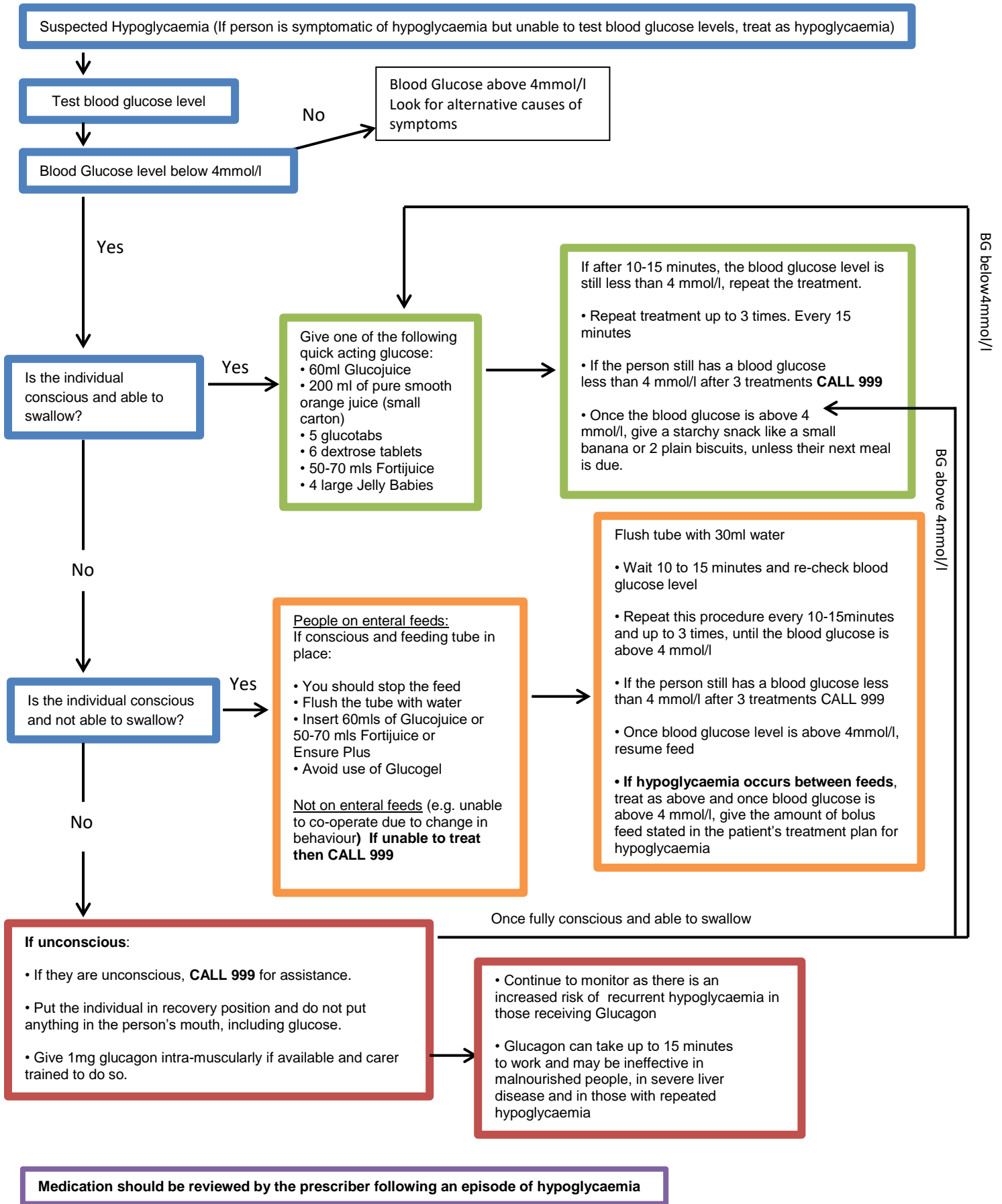
**Blood Glucose Target** (It will be different for each individual, see diabetes and frailty guidelines for more information): \_\_\_\_\_

Please always refer to the patient's individual diabetes treatment plan if available. The information contained in this document is only intended for patients who do not have an individual treatment plan in place.

If your resident is admitted to hospital please send a copy of the document with them to hospital.

Author and Job Title: Raquel Iniesta, Medicines Optimisation Pharmacist  
Date approved: 16<sup>th</sup> September 2019, BNSSG Area Prescribing & Medicines Optimisation Committee  
Review: September 2021

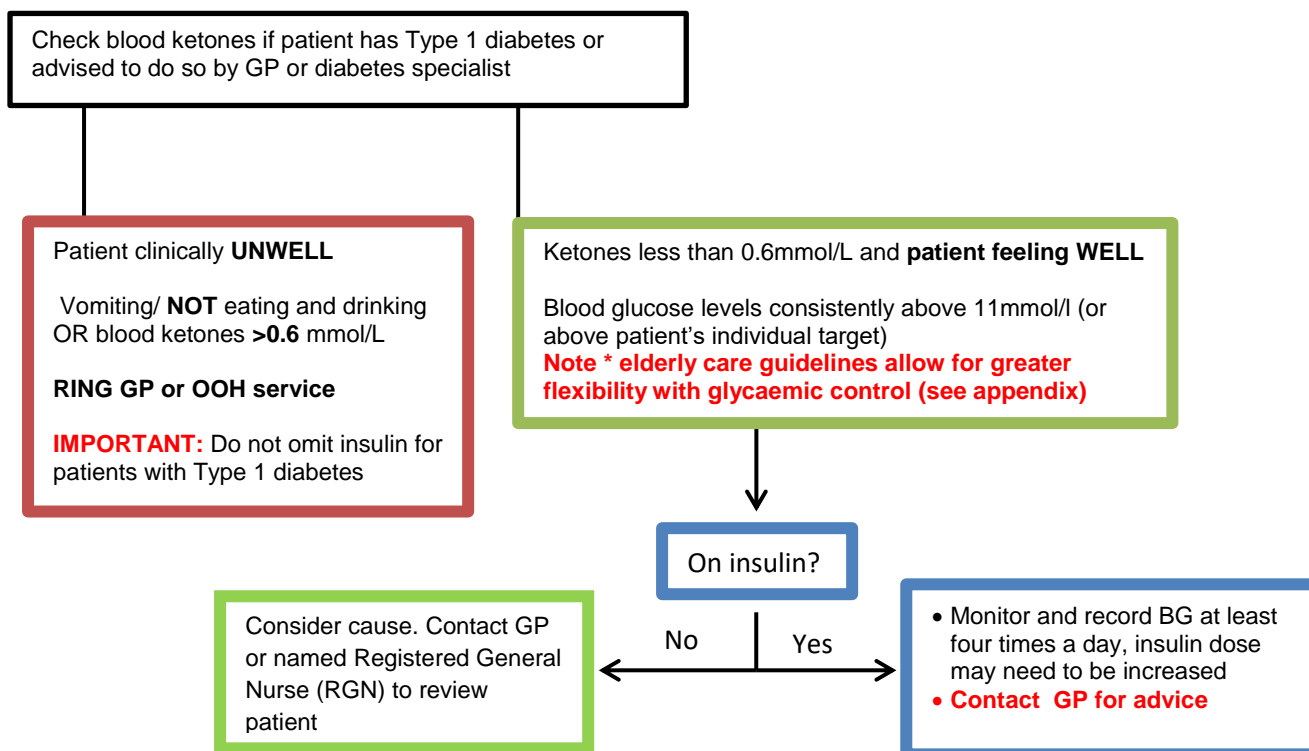
# Hypoglycaemia treatment flowchart:



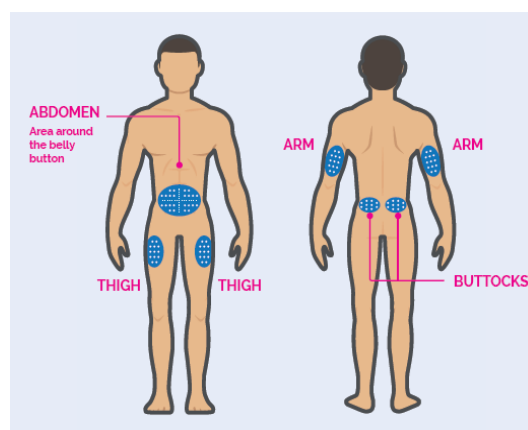
Adjusted from "Hypoglycaemia in adults in the community: recognition, management and prevention". TREND-UK. 2018

## Hyperglycaemia Flowchart (see Appendix for additional information for prescribers):

- If patient is unwell and blood glucose is frequently above target range, inform GP as review will be required.
- Consider the cause; consider concurrent illness, missed/incorrect oral hypoglycaemic agents or insulin, dietary changes

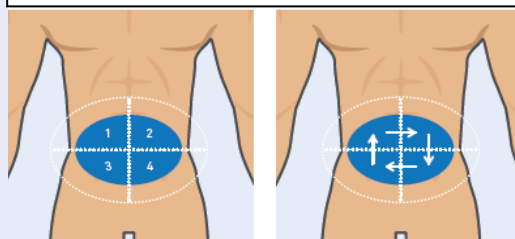


## Injection Sites



Site rotation: To reduce the risk of developing lipohypertrophy each injection site (abdomen, thighs, buttocks and arms):

- Should be divided into **sections** which are **rotated on a weekly** basis
- with injections given within a section moving in the same direction, clockwise or anticlockwise and **at least 1cm apart**



"Injection technique matters - Best practice guideline to support correct injection technique in diabetes care. TREND-UK. 2018."



"The UK Injection Technique recommendations 3<sup>rd</sup> Edition. Forum for Injection Technique UK (FIT UK). September 2015."

**In underweight individuals (BMI<18.5) consider if skin lift required for injection.**

Patient Name: \_\_\_\_\_ DOB: \_\_\_\_\_

**Blood Glucose Monitoring Chart**

Date																									Date
Time																									Time
Blood Glucose (mmol/L)																									Blood Glucose (mmol/L)
≥24																									≥24
22																									22
20																									20
18																									18
16																									16
14																									14
12																									12
10																									10
8																									8
6																									6
4																									4
2																									2
Hypo Treatment given																									Hypo T'ment given
Initial																									Initial
Ketones Blood																									Ketones Blood

Indicate the readings on the colour zones with 'x'

Range (mmol/L)	Action to be taken	Target Range of Blood Glucose level for this patient if different from above
≥ 16.0	Hyperglycaemia; seek advice; may indicate infection. Sick day rules? Urine/blood ketones test required?	_____ mmol/L to _____ mmol/L
10.1 –15.9	Sub-optimal; check food and fluid intake	
4.1– 10.0	Normal: If BG readings 4 to 5 mmol/L regularly, treatment may need review	
≤ 4.0	Hypoglycaemia; ask for review if this occurs regularly or a trend develops. See page 9	Nurse' Signature: _____ Date _____

Please always refer to the patient's individual diabetes treatment plan if available. The information contained in this document is only intended for patients who do not have an individual treatment plan in place.

Patient Name: \_\_\_\_\_ DOB: \_\_\_\_\_



**Blood Glucose Monitoring Chart**

Date																									Date
Time																									Time
Blood Glucose (mmol/L)																									Blood Glucose (mmol/L)
≥24																									≥24
22																									22
20																									20
18																									18
16																									16
14																									14
12																									12
10																									10
8																									8
6																									6
4																									4
2																									2
Hypo Treatment given																									Hypo T'ment given
Initial																									Initial
Ketones Blood																									Ketones Blood

Indicate the readings on the colour zones with 'x'

Range (mmol/L)	Action to be taken	Target Range of Blood Glucose level for this patient if different from above
≥ 16.0	Hyperglycaemia; seek advice; may indicate infection. Sick day rules? Urine/blood ketones test required?	_____ mmol/L to _____ mmol/L
10.1 –15.9	Sub-optimal; check food and fluid intake	
4.1– 10.0	Normal: If BG readings 4 to 5 mmol/L regularly, treatment may need review	
≤ 4.0	Hypoglycaemia; ask for review if this occurs regularly or a trend develops. See page 9	Nurse' Signature: _____ Date _____

Please always refer to the patient's individual diabetes treatment plan if available. The information contained in this document is only intended for patients who do not have an individual treatment plan in place.

Patient Name: \_\_\_\_\_ DOB: \_\_\_\_\_

**Blood Glucose Monitoring Chart**

Date																									Date
Time																									Time
Blood Glucose (mmol/L)																									Blood Glucose (mmol/L)
≥24																									≥24
22																									22
20																									20
18																									18
16																									16
14																									14
12																									12
10																									10
8																									8
6																									6
4																									4
2																									2
Hypo Treatment given																									Hypo T'ment given
Initial																									Initial
Ketones Blood																									Ketones Blood

Indicate the readings on the colour zones with 'x'

Range (mmol/L)	Action to be taken	Target Range of Blood Glucose level for this patient if different from above
≥ 16.0	Hyperglycaemia; seek advice; may indicate infection. Sick day rules? Urine/blood ketones test required?	_____ mmol/L to _____ mmol/L
10.1 – 15.9	Sub-optimal; check food and fluid intake	
4.1 – 10.0	Normal: If BG readings 4 to 5 mmol/L regularly, treatment may need review	
≤ 4.0	Hypoglycaemia; ask for review if this occurs regularly or a trend develops. See page 9	Nurse' Signature: _____ Date _____

Please always refer to the patient's individual diabetes treatment plan if available. The information contained in this document is only intended for patients who do not have an individual treatment plan in place.

Patient Name: \_\_\_\_\_ DOB: \_\_\_\_\_

**Blood Glucose Monitoring Chart**

Date																									Date
Time																									Time
Blood Glucose (mmol/L)																									Blood Glucose (mmol/L)
≥24																									≥24
22																									22
20																									20
18																									18
16																									16
14																									14
12																									12
10																									10
8																									8
6																									6
4																									4
2																									2
Hypo Treatment given																									Hypo T'ment given
Initial																									Initial
Ketones Blood																									Ketones Blood

Indicate the readings on the colour zones with 'x'

Range (mmol/L)	Action to be taken	Target Range of Blood Glucose level for this patient if different from above
≥ 16.0	Hyperglycaemia; seek advice; may indicate infection. Sick day rules? Urine/blood ketones test required?	_____ mmol/L to _____ mmol/L
10.1 –15.9	Sub-optimal; check food and fluid intake	
4.1– 10.0	Normal: If BG readings 4 to 5 mmol/L regularly, treatment may need review	
≤ 4.0	Hypoglycaemia; ask for review if this occurs regularly or a trend develops. See page 9	
		Nurse' Signature: _____ Date _____

Please always refer to the patient's individual diabetes treatment plan if available. The information contained in this document is only intended for patients who do not have an individual treatment plan in place.

Patient Name: \_\_\_\_\_ DOB: \_\_\_\_\_

**Insulin Administration Record**

<b>Insulin Name:</b> (brand name)				
Device: (cross out as appropriate)	Pen & Cartridge / Disposable pen / Vial			
Duration of Action: (please circle)	Short	Rapid	Intermediate	Long
	Rapid/Intermediate Mixture		Short/Intermediate Mixture	
Prescriber's Start date	Prescription Review Date (every 3 months or more frequently)			

Date and Time of new pen/vial/cartridge started	Batch number	Expiry Date

**Site:** *LA* – Left Arm; *RA* – Right Arm; *Ab* – Abdomen; *LT* – Left Thigh; *RT* – Right Thigh; *LB* – Left Buttock; *RB* – Right Buttock.  
**Quadrant** – 1,2,3,4. For example: **Ab1** (see page 4). Please state if self-administered with (**SA**): for example Ab1 (SA)

		Date													
<b>Route: Subcutaneous</b>	<b>Breakfast</b>	Units													
		Site													
		Time/ Signature													
	<b>Lunch</b>	Units													
		Site													
		Time/ Signature													
	<b>Evening Meal</b>	Units													
		Site													
		Time/ Signature													
	<b>Bedtime</b>	Units													
		Site													
		Time/ Signature													

Please always refer to the patient's individual diabetes treatment plan if available. The information contained in this document is only intended for patients who do not have an individual treatment plan in place.



Patient Name: \_\_\_\_\_ DOB: \_\_\_\_\_

**Insulin Administration Record**

<b>Insulin Name:</b> (brand name)				
Device: (cross out as appropriate)	Pen & Cartridge / Disposable pen / Vial			
Duration of Action: (please circle)	Short	Rapid	Intermediate	Long
	Rapid/Intermediate Mixture		Short/Intermediate Mixture	
Prescriber's Start date	Prescription Review Date (every 3 months or more frequently)			

Date and Time of new pen/vial/cartridge started	Batch number	Expiry Date

**Site:** *LA* – Left Arm; *RA* – Right Arm; *Ab* – Abdomen; *LT* – Left Thigh; *RT* – Right Thigh; *LB* – Left Buttock; *RB* – Right Buttock.  
**Quadrant** – 1,2,3,4. For example: **Ab1** (see page 4). Please state if self-administered with (**SA**): for example Ab1 (SA)

		Date																
<b>Route: Subcutaneous</b>	<b>Breakfast</b>	Units																
		Site																
		Time/ Signature																
	<b>Lunch</b>	Units																
		Site																
		Time/ Signature																
	<b>Evening Meal</b>	Units																
		Site																
		Time/ Signature																
	<b>Bedtime</b>	Units																
		Site																
		Time/ Signature																

Please always refer to the patient's individual diabetes treatment plan if available. The information contained in this document is only intended for patients who do not have an individual treatment plan in place.

## INSULIN ACTIONS AND PROFILES

**RAPID-ACTING ANALOGUE** e.g. Humalog\*, Novorapid, Apidra, Lispro Sanofi

**SHORT-ACTING (SOLUBLE)** e.g. Humulin S, Actrapid, Insuman Rapid

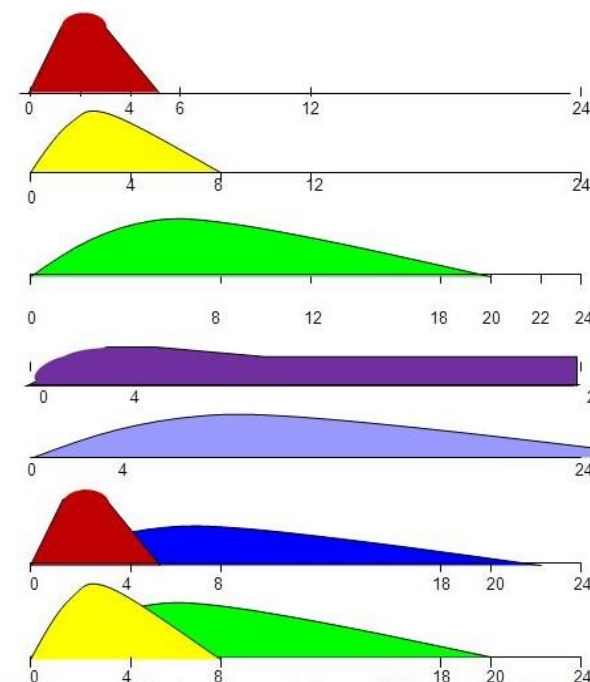
**INTERMEDIATE ACTING (ISOPHANE)** e.g. Insulatard, Humulin I, Insuman Basal

**ULTRA-LONG ACTING ANALOGUE** e.g. Degludec\*

**LONG-ACTING ANALOGUE** e.g. Lantus, Levemir, Semglee, Abasaglar, Toujeo\*

**RAPID ACTING ANALOGUE – INTERMEDIATE MIXTURE**  
e.g. Humalog Mix 25, Humalog Mix50 or Novomix 30

**SHORT ACTING ANALOGUE – INTERMEDIATE MIXTURE**  
e.g. Humulin M3, Insuman Comb 15,25, 50



**\*Important** Degludec & Humalog are available in strengths of 100 units/ml and 200 units/ml and Toujeo is only available in 300 units/ml strength, **ensure correct strength is prescribed**

TIME OF SUBCUTANEOUS INSULIN INJECTION IN RELATION TO FOOD INTAKE	
Rapid-Acting analogue	Immediately before, with or after a meal containing carbohydrates (based on individual treatment plan)
Short-Acting (Soluble)	20 – 30 minutes before a meal containing carbohydrates
Intermediate Acting (Isophane)	Give at regular time of day
Long Acting Analogue	Once or twice daily. Give at regular times of day
Ultra-Long Acting	Once daily (at a similar time each day where possible or as prescribed)
Rapid Acting Analogue-Intermediate Mixture	Immediately before, with or after breakfast and evening meal (Based on individual treatment plan) (additional lunchtime dose may be recommended in some patients)
Short Acting-Intermediate Mixture	20 – 30 min before breakfast and evening meal

## APPENDIX – Additional information for prescribers.

- **Hyperglycaemia:**

IF THE PERSON IS UNWELL WITH AN ILLNESS OR INFECTION the Insulin dose may need to be increased:

**(Always follow patient's individual treatment plan for illness if available)**

- 11.1 to 17 mmol/L-- Add 2 extra units to each dose
- 17.1 to 22 mmol/L-- Add 4 extra units to each dose
- Over 22 mmol/L-- Add 6 extra units to each dose

If taking more than 50 units in total daily, double the adjustments. All adjustments are incremental and should be reduced gradually as the illness subsides.

**Contact diabetes specialist nurse for advice if unsure about adjusting insulin doses**

If patients with diabetes become ill and are unable to maintain adequate fluid intake, they may need to **stop** the following medications until they recover and eat/drink normal:

- **S-** Sulfonylureas
- **A-** ACE inhibitors (e.g. ramipril, enalapril, lisinopril)
- **D-** Diuretics (e.g. furosemide, bendroflumethiazide)
  
- **M-** Metformin
- **A-** ARBs (e.g. losartan, valsartan, candesartan)
- **N-** NSAIDs (e.g. ibuprofen, naproxen, diclofenac)
- **S-** SGLT-2 inhibitors (e.g. canagliflozin, dapagliflozin, empagliflozin)
  
- GLP-1 receptor agonists (e.g. exenatide, liraglutide, lixisenatide, dulaglutide)