INPATIENT DIABETES MANAGEMENT – FREQUENTLY ASKED QUESTIONS

TARGET AUDIENCE	Secondary care, All Medical staff, Advanced Nurse Practitioners and ward nursing staff
PATIENT GROUP	Adult Hospital In-patients with Diabetes (excluding Pregnancy, different glucose targets)

Clinical Guidelines Summary

- This guidance gives summary information, with further reading guidance to be used by ward staff to support improved in-patient diabetes care.

- The document is based on In-patient diabetes guidance from Greater Glasgow & Clyde version 2023 and has been updated for NHS Lanarkshire with permission from original authors.

- The guidance covers Frequently Asked Questions for common in-patient diabetes scenarios, giving practical instructions – How do I?

- Included with each How do I scenario? – is reference to local or National Diabetes Guidelines, with further information and explanation.

Contents

1. Key Insulin Safety Tips

- Always check type of insulin, dose and frequency of administration from two sources e.g patient and carer, particularly when importing information from ECS to HEPMA
- If a patient uses pen insulin – prescribe pen insulin and administer using a pen
- Never draw insulin from a pen with a syringe
- Use pen safety needles
- Always prescribe on Insulin Prescription Chart with 'units' pretyped. Never write 'U' or 'IU'- this can lead to misreading of the dose
- Always continue basal/long acting insulin in a type 1 patient (even if fasting or NBM, dose may need adjustment)
- Twice daily mixed insulins e.g. Humulin M3 are typically prescribed before breakfast and before evening meal, not at bedtime.
- Ensure basal insulin administered before stopping VRIII
- If patients on insulin pumps are admitted and unable to self manage, remove pump and store securely. Commence alternative multiple daily dose subcutaneous insulin regime (basal & bolus insulin) or VRIII regime if clinically indicated.
- Be aware of concentrated pen insulins (Tresiba 200 units/mL, Toujeo 300 units/mL, Humalog 200 units/mL).
- Xultophy (=Tresiba 100units/ml + liraglutide). The 'dose steps' = insulin units. If Xultophy is unavailable or causing GI upset, an alternative basal insulin is Insulin Glargine (Lantus or Abasaglar), there are supply issues with Tresiba.

2. What CBG targets should I aim for?

- **Default target capillary blood glucose (CBG) 6 – 10 mmol/L**

- Consider **8 - 12mmol/L**
  - for elderly and frail patients
  - patients with reduced/no hypoglycaemia awareness

- Consider **8-15mmol/L**
  - for patients on an end-of-life pathway
  - Consider more liberal targets if clinical circumstances indicate

  e.g. cognitive/behavioural/psychiatric issues

3. When should I test for **capillary blood ketones** (CBK) and what do the results mean?

- CBK testing is available in most acute clinical areas:
  - All emergency departments
  - All acute medical and surgical assessment areas
  - All acute medical, medical specialty and surgical wards
  - All critical care areas

- **Who do I check blood or urine ketones in?**
  Patients with T1DM or secondary (pancreatic) diabetes and unwell patients e.g. sepsis with type 2 diabetes

- **When do I check blood or urine ketones in?**
  CBG > 14 or unwell

- **What do the results mean?** (section 11 for conversion to urine ketones)
  - **<0.6 – normal**
  - **0.6 -1.4 slight rise, adjust usual insulin and /or consider correction doses, given premeals and prebed**
  - **1.5 – 3.0 – requires additional insulin: check VBG to exclude DKA and ongoing CBG and CBK monitoring, every 2 hours** (see section 12)
  - **>3.0 – significant risk of DKA: check VBG to exclude DKA and ongoing CBG and CBK monitoring, every 2 hours**

Refer to protocol for DKA/hyperglycaemia for details on further management for elevated ketone (sample)
see section 12

4. What are the pharmacological treatment options in diabetes?

INJECTABLE THERAPIES

Insulin

Long acting
Lantus
Abasaglar
Levemir
Toujeo
Tresiba

Intermediate acting
Humulin I
Insulatard

'BASAL'

Short acting
Actrapid
Humulin S

Rapid acting
Fiasp
Novorapid
Humalog
Apidra
Lyumjev
Trurapi

'BOLUS'

Mix
Humulin M3
Novomix 30
Humalog Mix25
Humalog Mix50

GLP-1 Mimetics

Liraglutide
Dulaglutide
Semaglutide
Exenatide
Tirzepatide

Xultophy
(Liraglutide + Tresiba)

ORAL THERAPIES

- Metformin
- Gliclazide
- Rybelsus
- Pioglitazone

SGLT-2 inhibitors

Dapagliflozin
Empagliflozin
Canagliflozin
Ertugliflozin

DPP-4 inhibitors

Sitagliptin
Linagliptin
Alogliptin

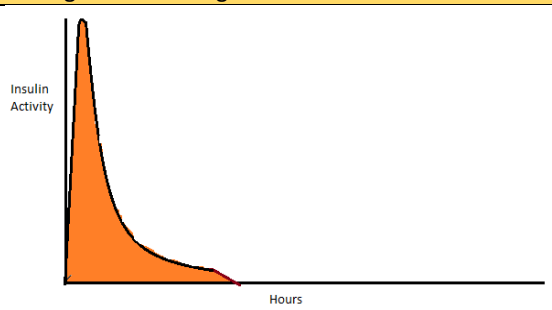
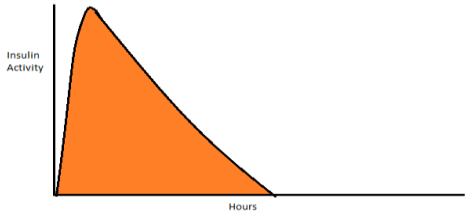
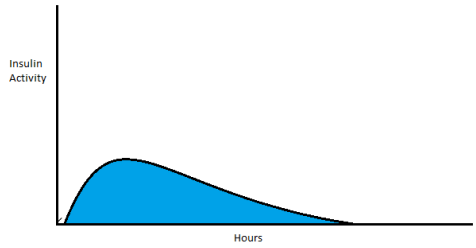
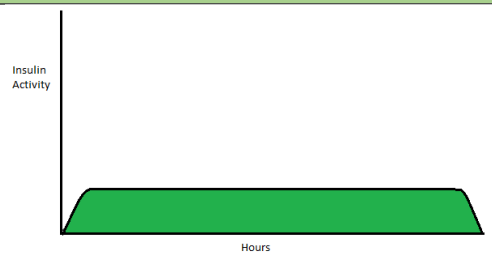
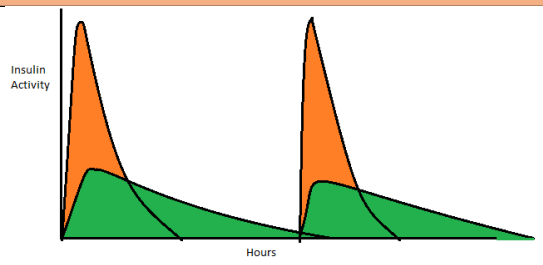
Combinations of oral drugs

(always check which generic drugs are included in branded combinations and clarify doses)

Please refer to NHS Lanarkshire Formulary for appropriate choice within each class

Lead Author	**Dr Liz McIntyre**	**Date approved**	**September 2025**
Version	**3**	**Review Date**	**September 2028**

5. Insulin Profiles

Insulin Type	Taken	Onset	Peak	Duration	Activity Profile
Rapid acting Insulin Analogues					
Novorapid Humalog Aprida Fiasp	10-15 mins before food	15-20 mins	1-2 hours	3-6 hours	
Short Acting Insulin					
Actrapid Humulin S Insuman rapid	15-30 mins before food	30-60 mins	1-5 hours	5-9 hours	
Intermediate Acting Insulin					
Insulatard Humulin I	Morning or bedtime	60-90 mins	2-12 hours	12-24 hours	
Long Acting Insulin					
Levemir	Twice daily	1-2 hours	6-14 hours	16-20 hours	
Lantus	Once daily	1-2 hours	No peak	20-24 hours	
Abasaglar	Once daily	1-2 hours	No peak	Up to 24 hours	
Tresiba	Once daily	1-4 hours	No peak	>42 hours	
Mixed Insulins					
Novomix 30 Humalog mix 25 Humalog mix 50 Humulin M3	10-15 mins or Just before meals	10-20 mins	1-4 hours	Up to 24 hours	

6. What are the commonly prescribed subcutaneous insulin regimens?

- **Basal Bolus**
  Long acting/intermediate insulin given once or twice daily to provide background insulin with faster acting insulin to cover meals

- **Twice daily mixed**
  Combination of intermediate and faster acting insulin, usually given before the breakfast and evening meal, **not at bedtime**. The number (25, 50) refers to the percentage of rapid acting insulin e.g. Humulin M3 = 30% short acting insulin and 70% intermediate acting.

- **Basal**
  Long acting/intermediate acting insulin, usually given once (e.g. Lantus) or twice daily (e.g. Humulin I or Levemir)

- **Insulin Pump Regime / Hybrid Closed Loop**
  Continuous Subcutaneous Insulin Infusion (CSII) by battery operated pump, uses rapid acting insulin analogues ONLY, e.g. Novorapid

7. How do I adjust insulin in an acutely **unwell** patient with **diabetes on insulin?**

- Aim target 6-10 mmol/L (unless specified otherwise)
- Check **HbA1c** to provide a context for CBG patterns during acute illness.

HbA1c (mmol/mol)	Mean CBG (mmol/L) (over 6-8 weeks)
40-55	7.0-8.5
56-70	8.5-11.0
71-90	11-14
91-120	14-18

- **Sepsis, trauma, major surgery, steroid therapy**
  - CBG usually rises: increase insulin doses (see sections 10 and 13 for guidance)
  - Consider checking ketones if CBG>14 mmol/L (Type1 DM) or >20 mmol/L (Type2 DM)

- **Fasting, recent weight loss, end-of-life, severe AKI**
  - CBG usually falls: decrease insulin doses (especially short/rapid acting insulin)
  - In a Type 1 patient, never completely stop long acting insulin

8. How do I manage non-insulin therapy in an **acutely unwell** patient with **T2DM**?

- **Metformin**
  - AKI - Stop if eGFR <30; reduce dose to 500mg twice daily if eGFR 30-44
  - Hold if severe sepsis, especially if lactate > 3
  - Hold if D&V
- **'Gliptins' (DPP-4i) & 'Glutides' (GLP-1 mimetics)**
  - withhold if D&V
  - dose-adjust if AKI (as per BNF)
- **'Gliflozins' (SGLT-2i)**
  - withhold if septic (especially urosepsis)
  - withhold pre-op,
  - withhold if D&V, dehydrated or AKI
  - **consider euglycaemic DKA if patient is unwell (check VBG & blood ketones)**
- **Pioglitazone**
  - discontinue if acute fluid overload (e.g. heart failure)
- **Gliclazide**
  - withhold or reduce dose if AKI, HbA1c <53 mmol/MoL, reduced oral carbohydrate intake
  - consider increasing dose if hyperglycaemic (e.g. steroids (see section 19) , review dose prior to discharge

9. How do I manage a hypo?

MILD

Patient conscious, orientated, able to swallow

- Give 15-20g of quick acting carbohydrate such as
  - 5-7 Dextrose tabs
  - 4-5 Glucotabs
  - 60ml Glucojuice
  - 150-200mL pure fruit juice
- Test blood glucose after 10-15 minutes. If CBG still less than 4, repeat treatment up to 3 cycles.
- If still <4 after 30-45 minutes or deteriorating call doctor and consider IV glucose or 1mg IM Glucagon (once only)

MODERATE

Patient conscious, and able to swallow but confused, disorientated or aggressive

- If co-operative, treat as for mild
- If not capable or cooperative, but can swallow, give 2 tubes of glucose gel (squeezed into mouth between gums)
- If ineffective, give 1mg Glucagon IM (once only)
- Test CBG after 10-15 mins – if less than 4 repeat above up to 3 cycles
- If CBG <4 despite 3 cycles or deteriorating, call doctor and consider IV glucose

SEVERE

Patient unconscious, very aggressive or nil by mouth (NBM)

- Check ABC
- Stop IV Insulin
- Contact doctor urgently
- Give IV Glucose over 15 mins as:
  - 200ml 10% glucose
  - Or 100ml 20% glucose
- Or give 1mg IM Glucagon (once only)
- Recheck glucose after 10 minutes, if CBG <4 repeat cycle

- Give 20g of long acting carbohydrate such as two biscuits/slice of bread/200-300ml milk/next meal.
- Continue regular CBG monitoring
- For patients with an enteral feeding tube, give 20g of long acting carbohydrate via this such as 50-70ml Ensure Plus or Fortijuice. Recheck CBG after 10-15 minutes. Repeat up to 3 times if CBG not above 4. If still not above 4 after 30-45 mins consider IV glucose.

- Once CBG >4 and patient recovered, treatment as on left
- If NBM – once glucose >4 mmol/L give 10% glucose at 100mls/hr until no longer NBM or reviewed by a doctor.

https://abcd.care/jbds-ip JBDS 01 Hypo Guideline & Alogrithm Jan 2023

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10. How do I prevent hypoglycaemia happening

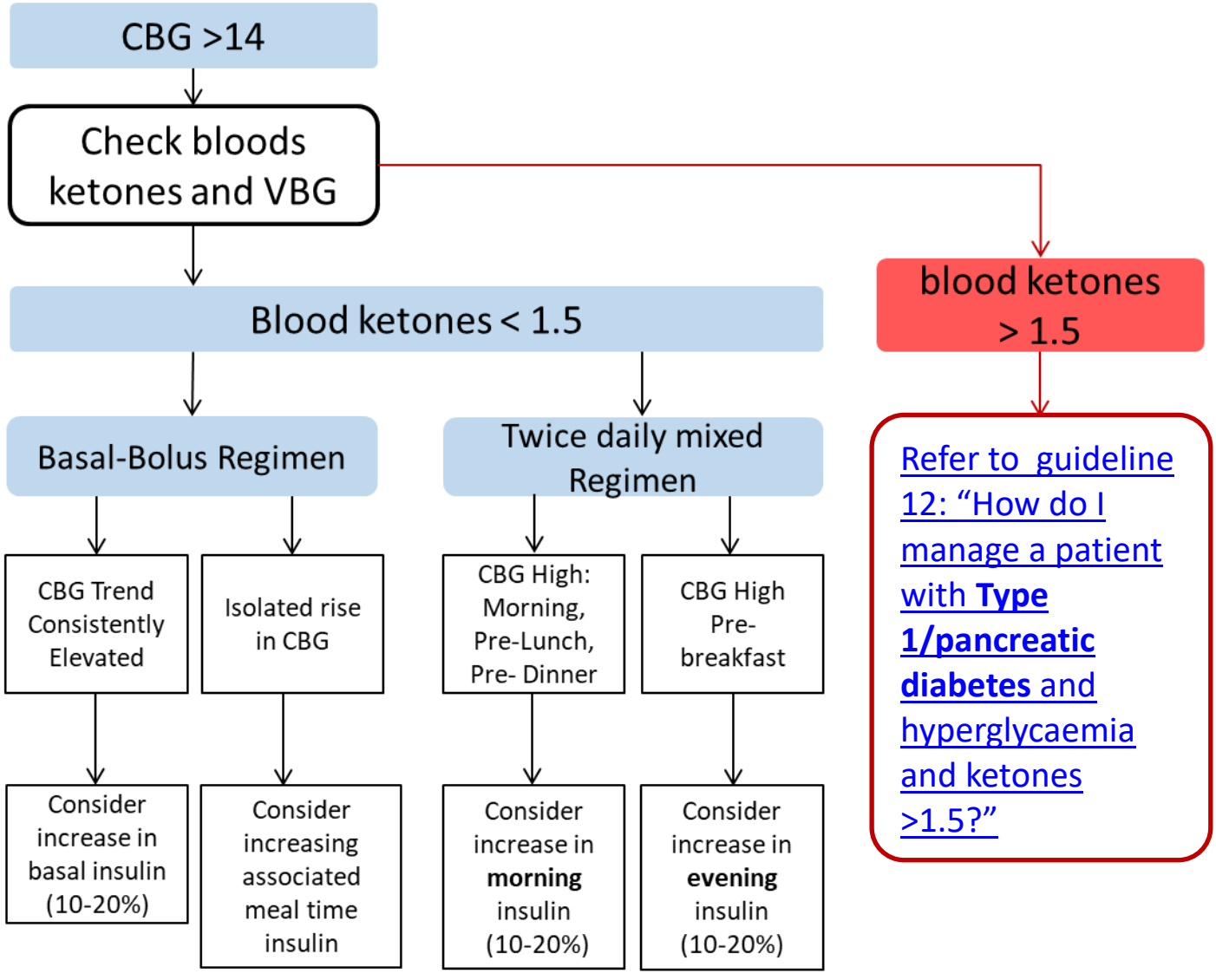
- Is the patient eating?
  - if they have a reduced appetite consider reducing insulin/gliclazide
- Look at trends in CBG and dose of insulin/gliclazide being administered
- Are they on **twice daily mixed insulin** *e.g Humulin M3?* If hypo is happening:
  - between breakfast and before dinner – consider reducing breakfast dose by 10-20%
  - after dinner/overnight - consider reducing evening dose by 10-20% and/or taking snack before bed
- Are they are on **a basal bolus regimen** e.g. Levemir/Lantus/Tresiba **and** Novorapid/Fiasp?
  - consider reducing the fast acting insulin preceding hypo if happening at same time
  - if trend is for CBGs to consistently run close to the lower end target, consider reduction in basal insulin
- Are they are on **basal only** e.g. Levemir/ Lantus/Tresiba?
  - reduce insulin by 10-20%

11. How do I manage hyperglycaemia in **Type 1/Pancreatic Diabetes?**

- Aim target CBG 6 – 10 mmol/L (unless specified otherwise).
- Capillary Blood Ketone (CBK) to Urine Ketone conversion

  CBK >1.5 – 3 = Urine Ketones ++

  CBK >3 = Urine Ketones +++ or ++++

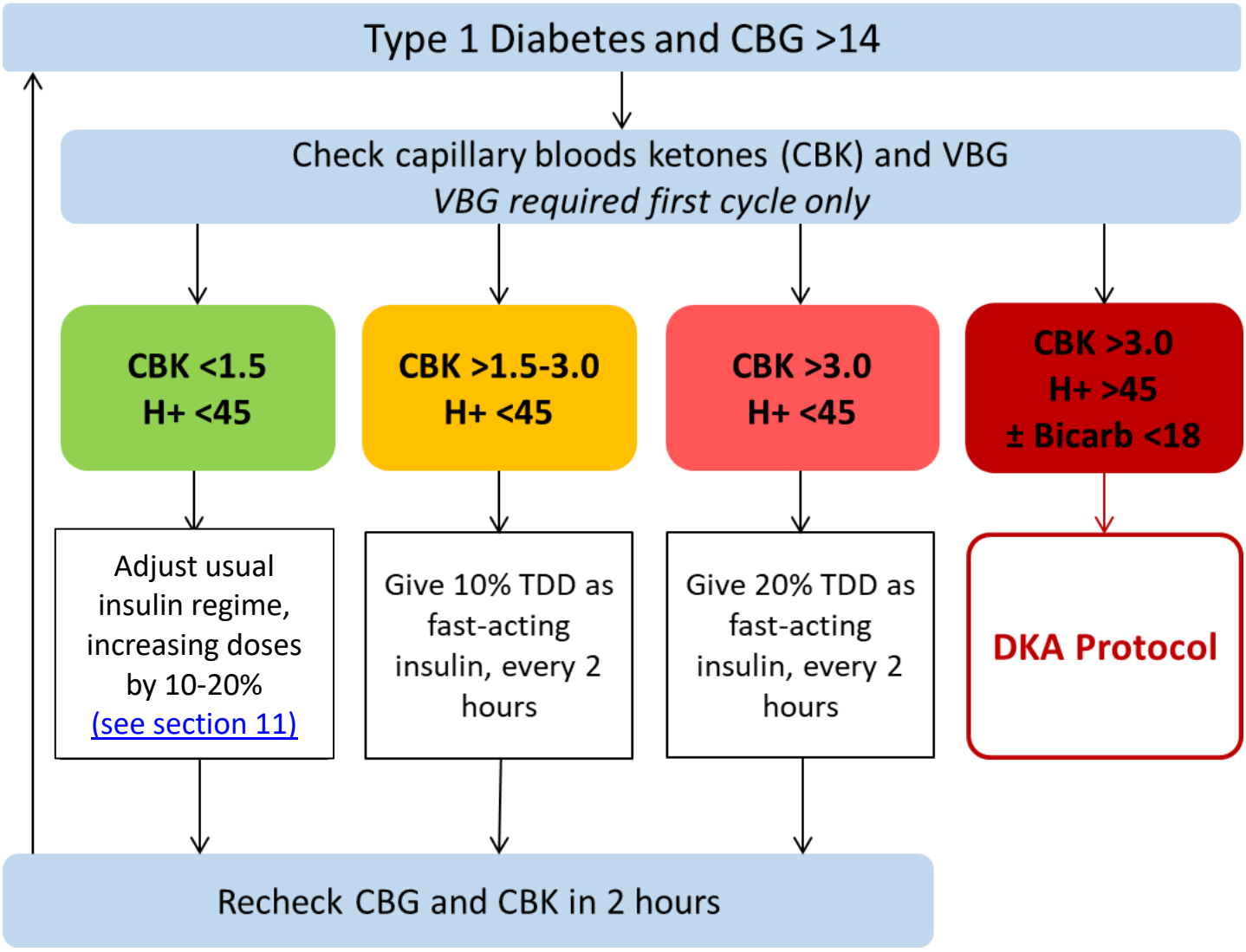


12. How do I manage **Type 1/Pancreatic diabetes** with hyperglycaemia and ketones > 1.5?

- TDD = Total Daily Dose which is the sum of all long-acting and fast-acting insulin taken in 24 hours
- Capillary Blood Ketone (CBK) to Urine Ketone conversion

  CBK >1.5 – 3 = Urine Ketones ++

  CBK >3 = Urine Ketones +++ or ++++



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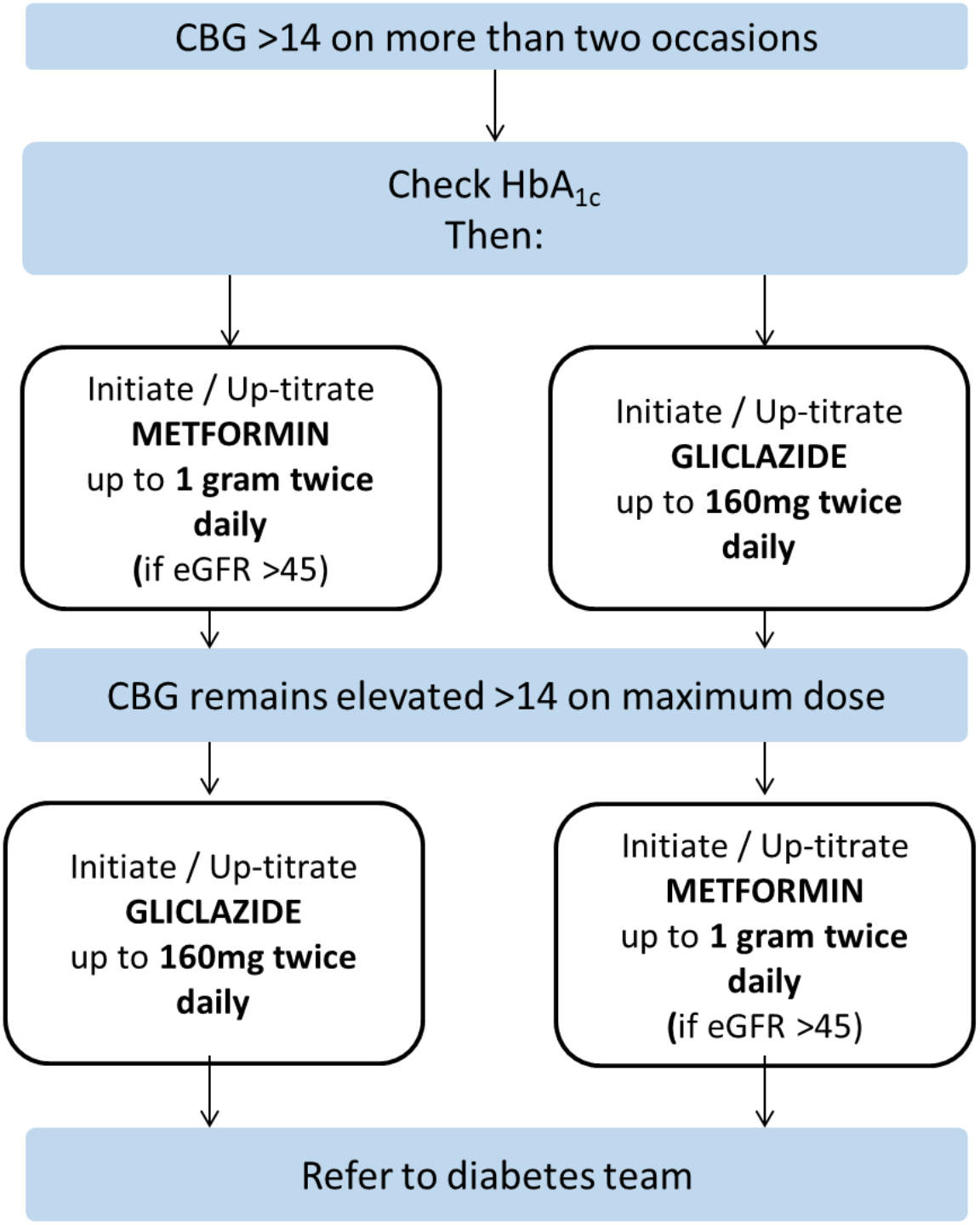
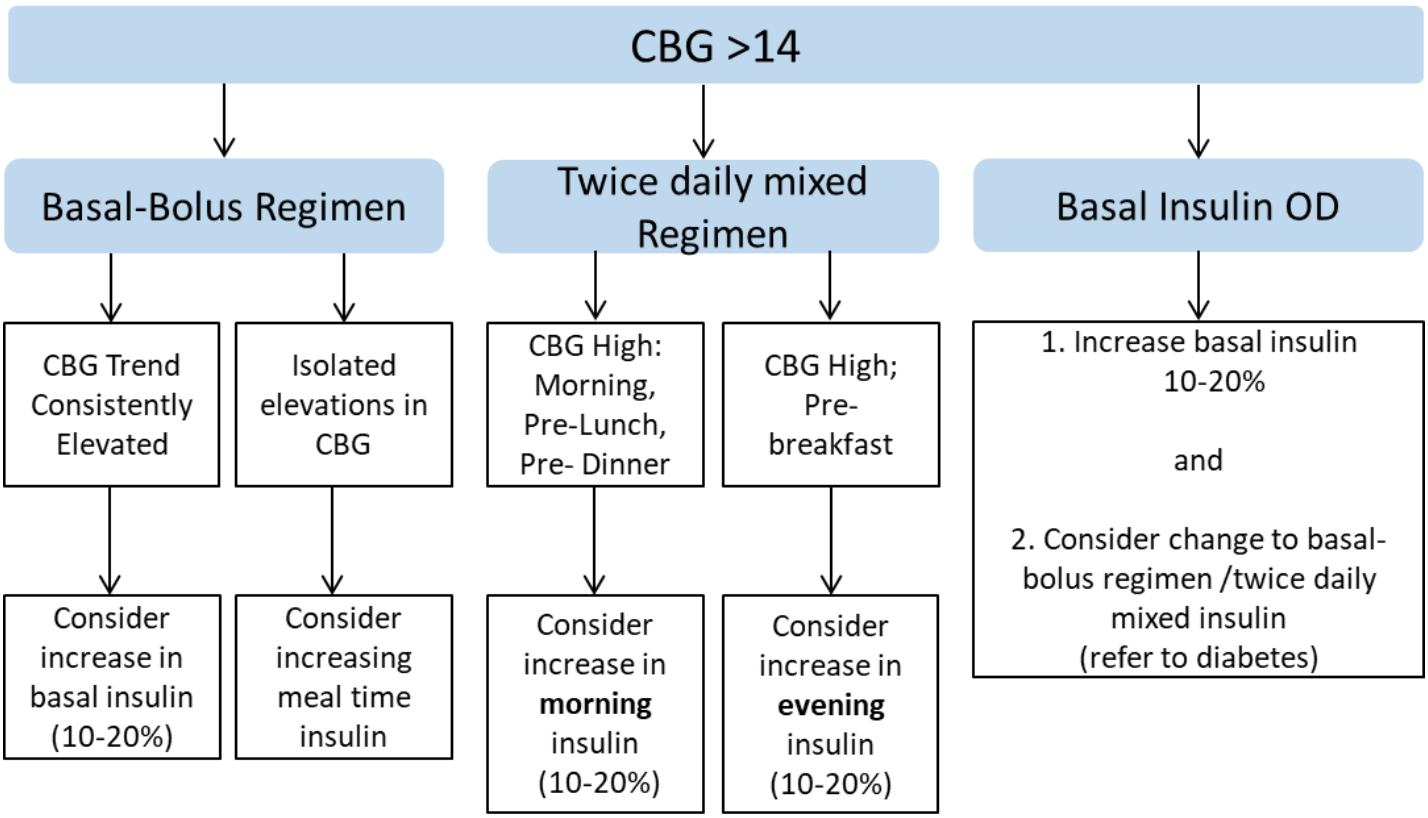
13. How do I manage hyperglycaemia in a patient with T2DM **not on insulin?**

- Aim target CBG 6 – 10 mmol/L (unless specified otherwise).



14. How do I manage hyperglycaemia in patients with **T2DM on insulin?**

- Aim target CBG 6 – 10 mmol/L (unless specified otherwise).
- Why is CBG high? Consider causes, for example sepsis, steroids, nutritional supplements.
- Usually no need for correction dose – aim to increase usual doses of insulin
- if CBG >20mmol/L on 2 or more measurements, check VBG & blood ketones, consider VRIII/DKA/HHS and seek senior help



15. How and when should I use insulin correction doses? (PRN insulin)

- Aim target CBG 6 – 10 mmol/L (unless specified otherwise).
- Avoid using correction doses where possible – review, identify causes and amend patient's regimen instead.
- Use Novorapid for PRN correction doses. **Actrapid should not be used.**
- As a guide, 1 unit of Novorapid will reduce the CBG by 3 mmol/L, for patients normal BMI

CBG (mmol/L)	PRN Novorapid dose
18-20	2 units
20-24	4 units
>24	6 units

- Re-check CBG after 4 hours. If >18 repeat PRN dose
- Avoid repeat PRN doses, particularly overnight, due to risk of insulin 'stacking' and hypoglycaemia. Aim to adjust usual insulin instead.
- Follow section 12 for management of patients with T1DM and raised ketones, CBK >1.5

16. How do I manage a patient with **Type 1/ Pancreatic Diabetes** who isn't eating?

- Increase the frequency of blood glucose monitoring to 4 – 6 times daily
- Check blood ketones (See section 11)
- Proactive insulin-dose reduction to avoid hypoglycaemia (10-20%)
- Withhold short/rapid acting insulin
- Consider changing twice daily mix insulin (e.g. humulin M3) to intermediate acting (e.g humulin I) at 50-70% total daily dose

If a patient with T1DM:
is NBM or
has no oral intake or
has persistent nausea and vomiting
→ **start a VRIII**
(don't forget to continue their long acting insulin with the VRII e.g. Lantus, Levemir, Abasaglar, Tresiba, see section 22)

17. How do I manage a patient with **T2DM** who isn't eating?

- Increase the frequency of blood glucose monitoring, 4 -6 times daily
- Withhold all oral diabetes drugs and GLP-1 agonists

- Also consider the following:
  - If using insulin consider dose-reduction to avoid hypoglycaemia (10-20%)
  - Withhold short/rapid acting insulin
  - Consider changing twice daily mix insulin (e.g. humulin M3) to intermediate acting (e.g humulin I) at 50-70% total daily dose
  - if very unwell and/or erratic CBG profile, consider VRIII

18. What is steroid-induced diabetes / hyperglycaemia?

- **Steroid-induced diabetes**
  Hyperglycaemia caused by steroid therapy in patients without a previous diagnosis of diabetes

- **Steroid-induced hyperglycaemia** Worsening glucose control following the use of steroids in patients with diabetes

- **How often should CBG be tested if steroids in use?**
  - Once daily if no diabetes (before lunch/evening meal)
  - Four times a day in patients with known diabetes or no diabetes if CBG >12 on 2 or more occasions in 24 hours from start of steroids

- **When should I treat hyperglycaemia in patients on steroids?**
  - **no diabetes:** if CBG >10mmol/L on 2 or more occasions in 24 hours (See section 19)
  - **known diabetes**: If CBG >10mmol/L on 2 or more occasions in 24 hours (See section 20)
  - if CBG ≥ 18 mmol/L on 2 or more occasions in 24 hours start VRIII and refer to section 22

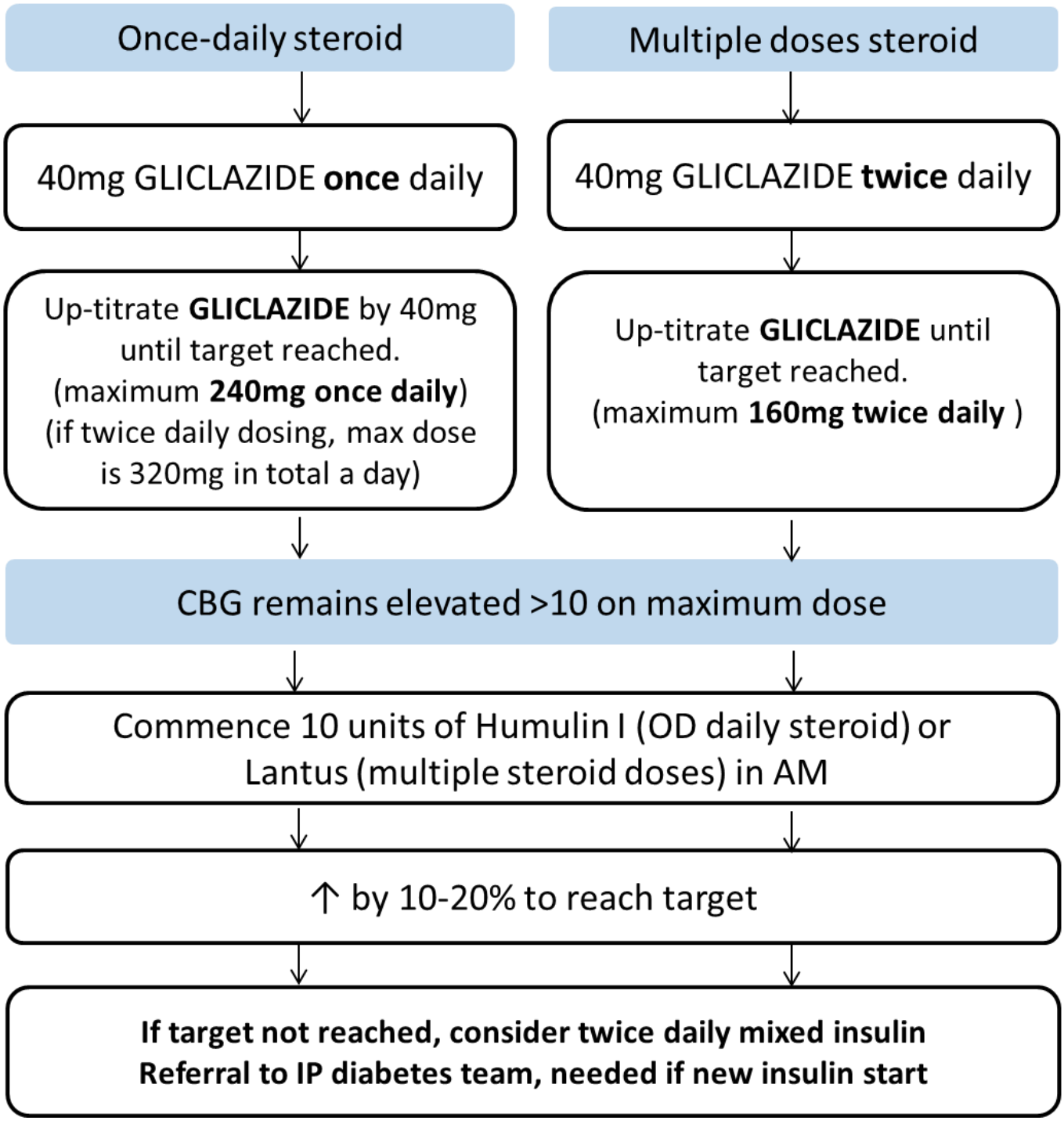
Monitoring of capillary glucose in patients on steroids and initial management of steroid induced hyperglycaemia

Further Info. refer National Guideline: JBDS – IP. Management of Hyperglycaemia and Steroid therapy (rev. Jan 2023) https://abcd.care>JBDS_Guidelines

19. How do I manage steroid-induced diabetes?

- Aim target CBG 6 – 10 mmol/L (unless specified otherwise).
- Check CBG QID - if CBG ≥ 18 mmol/L on 2 or more occasions in 24 hours start VRIII and refer to section 22

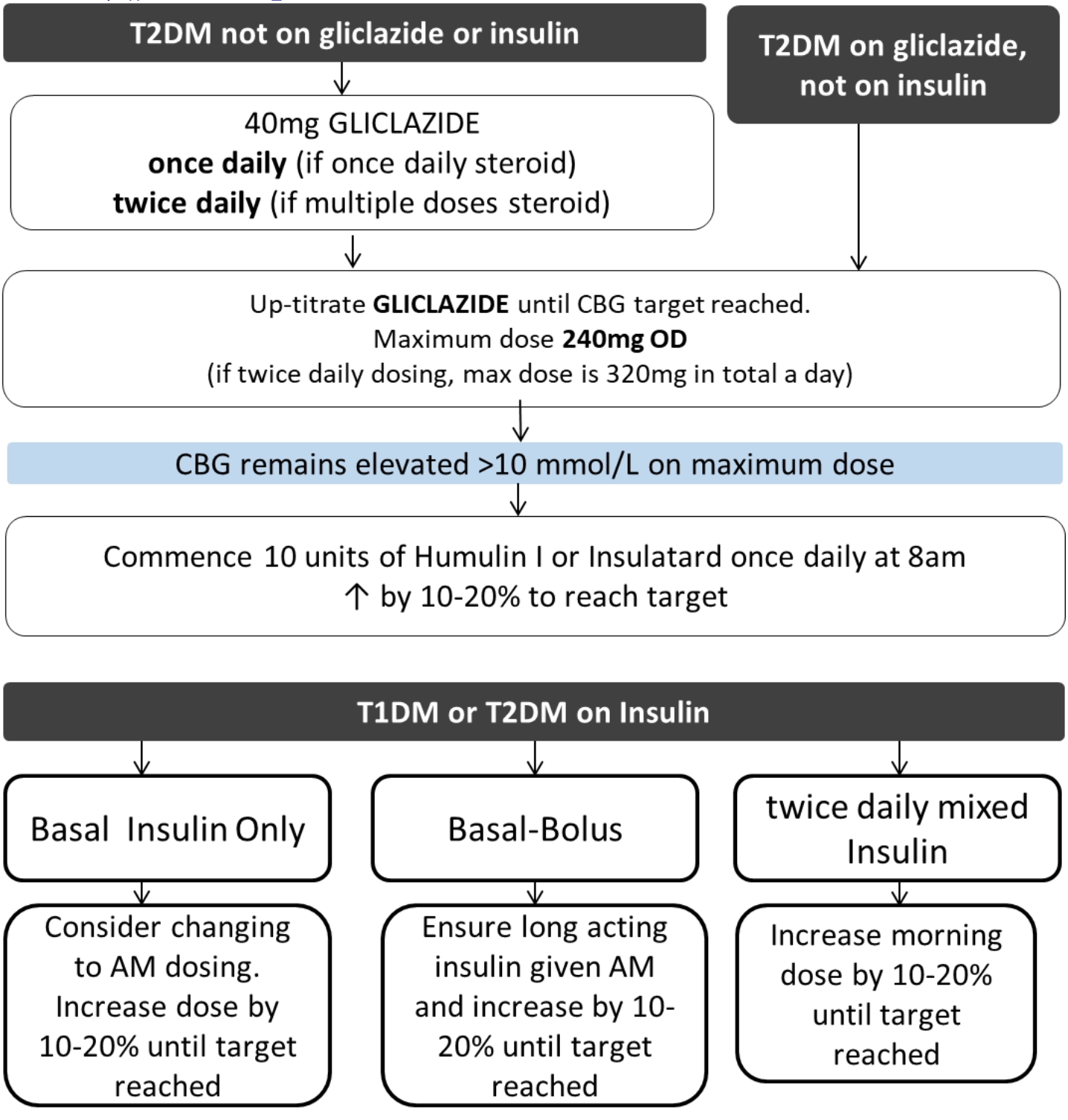
Further Info. refer National Guideline: JBDS – IP. Management of Hyperglycaemia and Steroid therapy (rev. Jan 2023) https://abcd.care>JBDS Guidelines



20. Diabetes patients - How do I manage steroid-induced hyperglycaemia?

- Target CBG 6 – 10 mmol/L (unless specified otherwise).
- Check HbA1c
- Check CBG 4 times a day, if CBG ≥ 18 mmol/L on 2 or more occasions in 24 hours start VRIII and refer to section 22

Further Info. refer National Guideline: JBDS – IP. Management of Hyperglycaemia and Steroid therapy (rev. Jan 2023) https://abcd.care>JBDS_Guidelines



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21. How do I manage hyperglycaemia during intermittent NG feeding? (12-20 hours)

- Refer when possible to diabetes team before NG feeding for existing Diabetes patients
- Refer all patient with hyperglycaemia to diabetes team on NG feeding as soon as possible

Commence VRII for 24 hours

↓

To calculate Total Daily Dose (TDD):
Calculate total IV insulin used in 24 hour period and subtract 25%.

↓

1. Give give 2/3 of TDD as Humulin M3 at start of feed

↓

2. Stop VRII 2 hours after Humulin M3 administered

↓

3. Give remainder 1/3 of TDD as Humulin I 12 hours into feed

↓

↑ or ↓ by 10-20% to reach target (6-10mmol/L, unless otherwise specified)

Further information: JBDS 05: Enteral Feeding Guideline (April 2024)
https://abcd.care>JBDS_Guidelines

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22. When do I use a VRIII? What do I do with the usual insulin?

Consider a VRIII in:

- A patient with T1DM who is:
  - NBM
  - has prolonged vomiting
  - reduced consciousness
- Any diabetes patient with:
  - uncontrolled hyperglycaemia (significantly outwith specified targets)
  - who is peri-operative & unlikely to be eating

Continue long-acting insulin alongside VRIII

e.g. Humulin I, Insulatard, Lantus, Levemir, Abasaglar or Tresiba

Pre-mixed or fast acting insulin should <u>not</u> be administered whilst on VRIII.

Pre-mixed e.g. Humulin M3, Novomix 30, HumalogMix 25

Fast acting e.g. Novorapid, Humalog

Do not convert mixed insulin to long acting component only with a VRIII

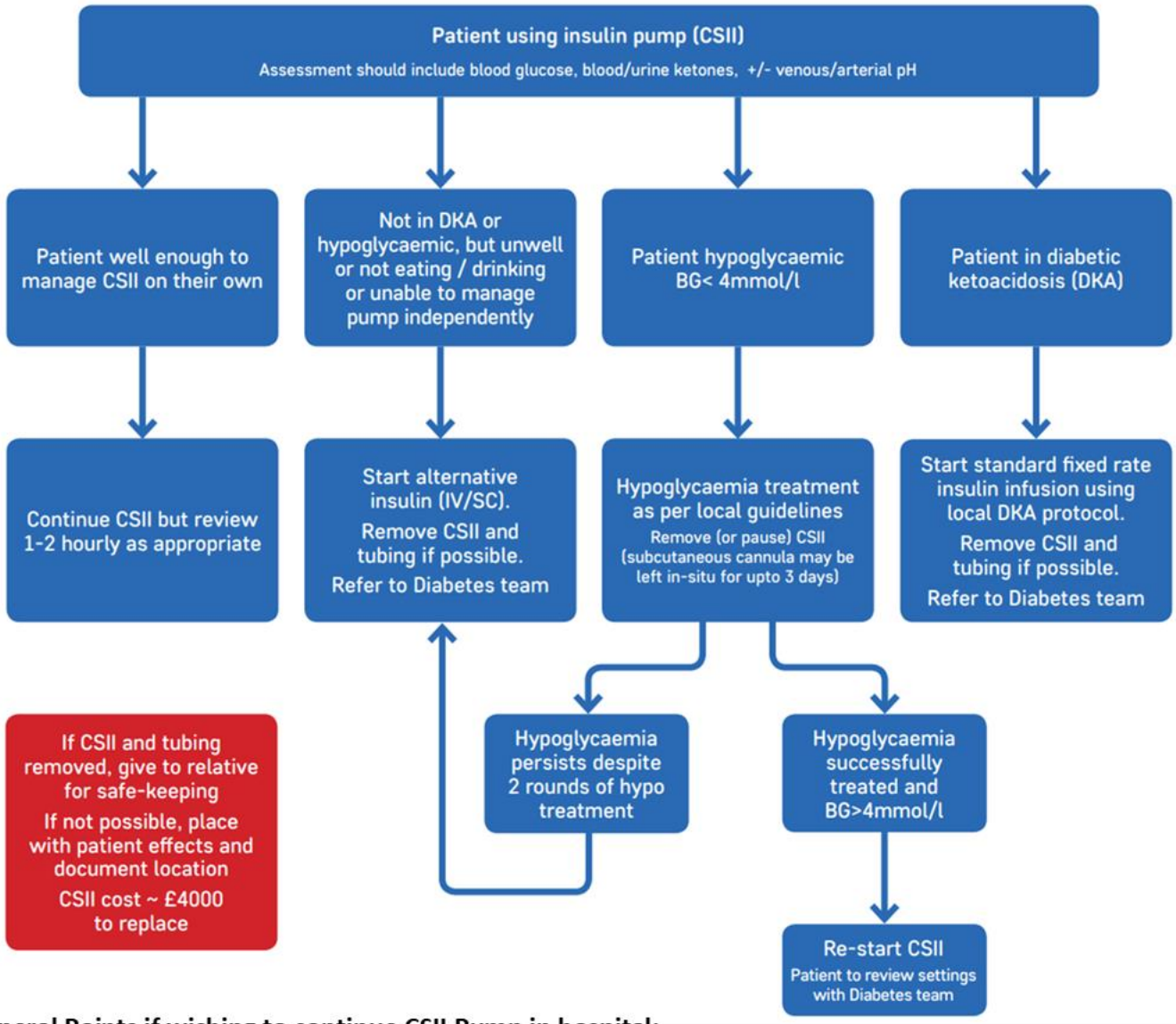
e.g. Humulin M3 should not be given as Humulin I

In patients with T2DM, usual diabetes medications can be continued with a VRIII unless other contraindications e.g. AKI

23. How do I stop a VRIII?

- If clinically indicated to stop VRIII, then it can be stopped if long-acting insulin is on board.
- If no long-acting insulin already on board, give usual long-acting insulin and stop VRIII after 2 hours
- If switching back to mixed insulin (e.g. Humulin M3), it must be done either at breakfast or dinner, and stop VRIII after 2 hours
- If new insulin start, calculate total dose over past 24 hours and give 75% in appropriate subcutaneous regime (e.g. basal bolus, twice daily mixed etc, refer to inpatient diabetes team)

24. How do I assess if a patient should use their insulin pump in hospital?



General Points if wishing to continue CSII Pump in hospital:

1. Ensure adequate supplies for CSII pump (e.g. spare batteries, infusion sets (i.e. reservoirs, lines & cannulae, or spare PODs)
2. Ensure adequate spare CGM sensors and transmitter if using integrated system
3. Ask patient what their alternative insulin pen regime / MDI is and document, this, along with average Total Daily Dose (TDD) from pump in case of pump failure or struggling to self manage

If not got spare supplies, ask a relative to bring these, **in the same day**

All CSII Pumps and CGM sensors MUST be removed for any procedure using diathermy
All CSII Pumps and CGM sensors MUST be removed before MRI imaging
All CSII Pumps MUST be removed before CT imaging
Only the following CGM sensors (Libre 2 plus, Libre 3, Libre 3plus, Dexcom One+ and Dexcom G7) can be worn during CT imaging if protected by lead apron and outwith scan field. If uncertainty CGM product type remove before CT imaging.

25. How do I manage a patient using insulin pump in hospital?

- Remember patient using insulin pump systems are usually expert in own diabetes management
- Be aware patient using CSII pumps in hospital are at increased risk of DKA, especially if insulin pump disconnected or cannula failure
- Prescribe pump insulin (regular) and back up MDI and Sick Day pen insulin (PRN) on HEPMA Insulin Pump protocols
- Ensure ward staff continue regular CBG monitoring usually 4 times daily and if indicated CBK monitoring.
- Ensure daily review insulin pump therapy chart used
- Follow in-patient pump guidelines for common scenarios, e.g. radiology tests, diagnostic procedures
- Sick Day Rules for patients using pumps are available:

  Sick Day Rules Standalone Insulin Pump & Sick Day Rules HCL Insulin Pump
- All patients with insulin pumps can be converted back to subcutaneous multiple daily insulin injections or VRIII if not eating.

NHSL Guideline – Use of Insulin Pump Systems in Acute Hospitals 2025

Further Information: JBDS 20: Using Technology to Support Diabetes Care in Hospital. https://abcd.care>JBDS Guidelines

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26. What happens if a dose of insulin is omitted?

These are suggestions only – exact management will depend on individual circumstances.

- **Once daily long acting insulin** (e.g. lantus, abasaglar)
  Give as soon as missed dose noted. Time of subsequent doses will need to be changed. Aim to adjust back to usual administration time.

- **Twice daily levemir**
  Give missed dose as soon as noted, give next dose 12 hrs later. Aim to adjust back to usual administration time.

- **Tresiba**
  Has administration window of approx. 8 hrs. Give as soon as missed dose noted. If outwith 8 hr window give usual dose and aim to adjust back to usual time of administration.

- **Meal time insulin** (e.g. novorapid, humalog)
  If within an hour of eating, give usual dose. If >1hr, consider correction dose if CBG high (See section 15).

- **BD mixed insulin** (e.g. humulin M3)
  Give 50-70% of dose as soon as missed dose noted if <4hrs. Ensure patient has a snack to avoid hypo. If >4 hours consider correction dose according to CBGs (See section 15). Do not change time of next dose.

Remember to check ketones in patients with T1DM with missed doses and hyperglycaemia

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27. When and how do I refer to Diabetes Specialist Team?

Please be aware, the service may not be able to patients on same day referred. ALL REFERRALS UHM, UHW and DSN at UHH should be sent through Workbench on TRAKCARE, (for UHH Consultant review, contact Diabetes secretaries).

Consultant Referral

- New diagnosis Type 1 Diabetes.
- Diabetic Ketoacidosis (DKA).
- Hyperosmolar Hyperglycaemic State (HHS).
- Patients on insulin pumps.
- Patients started on NG feed.
- Primary reason for admission is severe hypoglycaemia.
- Management with VRIII > 48 hrs
- Acute Diabetes Foot Problems

DSN Referral

- Type 2 newly started on insulin therapy.
- For patient education on changes to insulin regime e.g. from BD injections to basal bolus injections
- On insulin with poor or erratic diabetic control including frequent hypoglycaemia.
- Blood glucose meter education if necessary during the admission, (usually initiated by GP/ PN).
- Sick day rules education post DKA admission.
- Patients who will require follow up by DSN on discharge.

Referrals for GP & Practice Nurse

- New Type 2 diabetes diagnosis
- Type 2 diabetes treated with diet or oral medications.

Does not require DSN follow-up

PLEASE NOTE – Adjustment of diabetes medication doses should normally be carried out at ward level by the attending doctor, without referral to the specialist service e.g. increase/decrease of insulin or oral medications.

Lead Author	Dr Liz McIntyre	Date approved	September 2025
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28. Admission Checklist for patients with diabetes

- Clarify type of diabetes
- Check HbA1c (if no result in last 3 months)
- Consider checking blood ketones/VBG if hyperglycaemic
- Check at least 2 sources for diabetes drugs, especially insulin – clarify type, frequency, doses
- Prescribe insulin by brand name and device (e.g. Novorapid Flexpen), not generic name (e.g. Insulin Aspart)
- Prescribe/document insulin delivery method on insulin chart (if self-administers) i.e. penfill cartridges or type of disposable pen (e.g. Novomix 30 flexpen)
- Be aware of concentrated insulin and combination pens e.g. Toujeo, Xultophy
- Always prescribe insulin on both HEPMA and Insulin Chart.
- Never write U or IU in the medical notes or after the number on the insulin chart (units are pre-printed).
- On HEPMA document regular administration times for insulin and doses 'as charted'.
- Consider with holding non-insulin therapy depending on presentation [see section 8]
- Consider proactively altering insulin doses depending on the acute presentation and initial CBG measurements
- Never stop intermediate/long acting insulin in Type 1 or pancreatic diabetes
- If patient is on an insulin pump, seek early specialist advice.

29. Discharge checklist for patients with diabetes

- Review any withheld diabetes drugs and consider restarting if appropriate

- Review any inpatient dose titrations (especially insulin and gliclazide) and communicate with patient/carer and GP about any ongoing titration advice (e.g. proactive down titration if reducing course of steroids)

- **Include insulin name and units on the date of discharge in letter text on IDL** (use brand names)

- If patient unable to self-manage new insulin regime, ensure that the Community Nursing Team & Community DSN Team are aware (ward nurses can refer)

- Ensure Type 1 patients and other complex diabetes patients as advised have follow up with local hospital diabetes service and copy summary to consultant

- If DSN follow-up is arranged prior to discharge, check that the patient knows where and when.

- Majority of new and existing Type 2 diabetes patients should have follow-up via there GP practice, include in discharge letter.

30. NHS Lanarkshire Diabetes Guidelines, Pathways and Charts

- NHS Lanarkshire Diabetes Guidelines
  NHSL Guideline site, Right Decisions Service

https://rightdecisions.scot.nhs.uk/nhsl-guidelines/endocrine/?organization=nhs-lanarkshire

- NHSL Record of Diabetes Pathways & Charts for reference only, printed copies available in clinical areas, ordered by ward admin. Staff

http://firstport2/staff-support/practice-development-centre/nmahp-clinical-records/Documents/Forms/AllItems.aspx

Search Clinical record site:

- Diabetic ketoacidosis Care Pathway
- Hyperglycaemic hyperosmolar State Care Pathway
- Adult Diabetes daily Subcutaneous Insulin Prescription chart
- Variable Rate Intravenous Insulin Infusion Chart
- Insulin Pump Daily Review Checklist

31. References and Further Reading

- Joint British Diabetes Societies (JBDS) for Inpatient care group – relevant Guidelines
  https://abcd.care/jbds-ip

JBDS 01 Hypo Guideline January 2023
JBDS 02 DKA Guideline March 2023
JBDS 03 Diabetes Surgery Guideline - January 2023
JBDS 04 Self Management of Diabetes in Hospital February 2023
JBDS 05 Enteral Feeding Guideline April 2024
JBDS 06 The management of HHS in adults February 2022
JBDS 08 Management of Hyperglycaemia and steroid therapy Jan 2023
JBDS 09 IP VRIII October 2014
JBDS 10 Discharge Planning Guideline March 2023
JBDS 11 Management of adult with diabetes on dialysis March 2023
JBDS 13 Mental Health September 2017
JBDS 15 Inpatient Care of the Frail Older Adult February 2023
JBDS 16 Diabetes at the Front Door May 2023
JBDS 17 Oncology Guideline January 2023
JBDS 18 COVID Virtual ward v1.2 March 2021
JBDS 20 Using Technology to support Diabetes IP Care March 2024

- End of Life Guidance for Diabetes Care – June 2024
  https://www.diabetes.org.uk/for-professionals/improving-care/clinical-recommendations-for-professionals/diagnosis-ongoing-management-monitoring/end-of-life-care
- Perioperative Care of People with Diabetes – October 2023
  https://cpoc.org.uk/guidelines-and-resources/guidelines/guideline-diabetes

Appendices

1. Governance information for Guidance document

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Responsible Person (if different from lead author)	

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CHANGE RECORD

Date	Lead Author	Change	Version No.
15.4.25	Dr Liz McIntyre	*Addition of pages referring insulin pump assessment & monitoring*	1
29.4.25	Dr Liz McIntyre	Referencing of guidance to ABCD-IP and Further reading references, completed	2
29.5.25	Dr Liz McIntyre	Edits form colleague feedback, mainly typos, and minor adjustments for improved clarity	3
01.08.25	Dr Liz McIntyre	Edits for Topic 27. Referral to diabetes team, rewritten Karen Allen (IP-DSN) and discussed with MDT at Monklands service Meeting 30.7.25	4
01.08.25 - 04.8.25	Dr Liz McIntyre	Reformatting of full document from Powerpoint to Word template.	5
4.08.25	Dr Liz McIntyre	Page 25 – pending correct hyperlink once IP Pump guidelines is live to be added	6
27.08.25	Dr Liz McIntyre	Page 27 – added foot disease as referral reason to consultants	7