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# New presentation of hyperglycemia (CBG >11mmol/L) to ED (not known to have diabetes) quick reference guide

| Classification:                             | Guideline                                      |                   |            |  |
|---|--|-------------------|------------|--|
| Authors Name:                               | Paige Bell & Melanie Kennedy                   |                   |            |  |
| Authors Job Title:                          | Lead Diabetes Specialist Nurses – MKUH / MKIDS |                   |            |  |
| Authors Division:                           | Medicine - Internal                            |                   |            |  |
| Departments/Group this Document applies to: | All clinical                                   |                   |            |  |
| Approval Group: Internal medicine CIG       |  | Date of Approval: | 01/10 2024 |  |
|   |  | Last Review:      | 13/03/2024 |  |
|   |  | Review Date:      | 01/10/2027 |  |

Unique Identifier: RADAR | Status: Approved | Version No: 1.1

Guideline to be followed by (target staff): All Nursing & Medical Staff

# To be read in conjunction with the following documents:

List here policies/policys/patient information/forms/any other document which is linked to this guidance

# Are there any eCARE implications? No

CQC Fundamental standards: CQC Fundamental Standard which this policy meets?

Regulation 9 – person centered care

Regulation 10 – dignity and respect

Regulation 11 – Need for consent

Regulation 12 – Safe care and treatment

Regulation 13 – Safeguarding service users from abuse and improper treatment

Regulation 14 – Meeting nutritional and hydration needs

Regulation 15 - Premises and equipment

Regulation 16 – Receiving and acting on complaints

Regulation 17 – Good governance

Regulation 18 – Staffing

Regulation 19 – Fit and proper

## Disclaimer -

Since every patient's history is different, and even the most exhaustive sources of information cannot cover every possible eventuality, you should be aware that all information is provided in this document on the basis that the healthcare professionals responsible for patient care will retain full and sole responsibility for decisions relating to patient care; the document is intended to supplement, not substitute for, the expertise and judgment of physicians, pharmacists or other healthcare professionals and should not be taken as an indication of suitability of a particular treatment for a particular individual

The ultimate responsibility for the use of the guideline, dosage of drugs and correct following of instructions as well as the interpretation of the published material **lies solely with you** as the medical practitioner.





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## **Guideline Statement**

This guideline is to support clinicians to safely manage new presentations of hyperglycemia in patients who present the emergency department. This guideline does not replace clinical judgement but to assist the decision-making process.

- Seek early advice from Diabetes Medical Team If Diabetic Ketoacidosis (DKA) or Hyperosmolar Hyperglycaemic state is suspected.
- Patients requiring DKA (Diabetic Ketoacidosis), or HHS (Hyperosmolar Hyperglycaemic State) management please use the PowerPlan on eCARE.
- Involve the Diabetes Inpatient Specialist Nurse (DISN)Team as soon as possible (some patients may not need to be admitted).

## **Executive Summary**

This guideline seeks to support clinical decision making in patients experiencing hyperglycemia by helping to rule out diabetes emergencies such as DKA/HHS, assisting clinical decision making to prevent complications of hyperglycemia for adult patients.

## **Definitions**

DISN – Diabetes Inpatient Specialist Nurse
MKIDS – Milton Keynes Integrated Diabetes Service
FRiii – Fixed rate intravenous insulin infusion
CBG – Capillary Blood Glucose
DKA (Diabetic Ketoacidosis
HHS (Hyperosmolar Hyperglycaemic State)
Diabetes MDT (Multi-Disciplinary Team).
Diabetes MDT (Multi-Disciplinary Team).

# 1.0 Roles and Responsibilities:

It is the responsibility of all doctors and nurses who manage patients who may present to the emergency department to familiarise themselves with this guidance.

If there is uncertainty after reviewing this guideline you must escalate concerns to a senior member of your team or the Diabetes MDT (Multi-Disciplinary Team). All Healthcare professionals who prescribe, dispense and/or administer insulin must complete the mandatory insulin safety module on ESR (Electronic Staff Record)

The DISN Team work Monday to Friday 8-4pm. Saturday and Sunday 8-12:15. No bank holidays.

The MKIDS Team is a multi-disciplinary team consisting of Diabetes Consultants and Diabetes Specialist Nurses with administration support. This service is presently only available Monday – Friday 9-5pm (excluding bank holidays). They work



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alongside colleagues in primary care to provide high quality, local care for people living with diabetes with a Milton Keynes GP.

They are presently based at: Willen Surgery, Beaufort Drive, Willen, Milton Keynes MK15 9EY. Hospital staff can use the referral form found on the MKUH intranet – Tools – Diabetes – Quick reference guides and refer directly to: mk.ids@mkuh.nhs.uk

Please put patients initials and NHS number in the subject field (the clinical system there works on NHS numbers).

# 2.0 Implementation and dissemination of document

This guideline will be included as an appendix to the in the insulin safety module and discussed at Think Glucose study days.

The guideline can be accessed on the MKUH internet – Tools – Diabetes – Quick reference guides

It will also be communicated using the Trust weekly newsletter

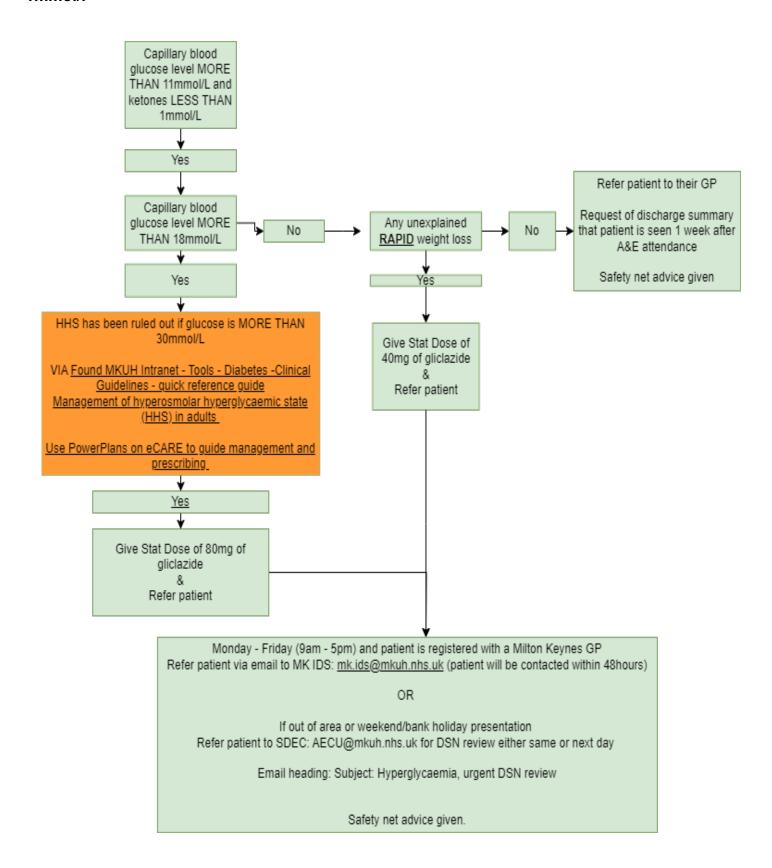
A laminated chart of the flowchart will be sent to the emergency department.





## 3.0 Processes and procedures

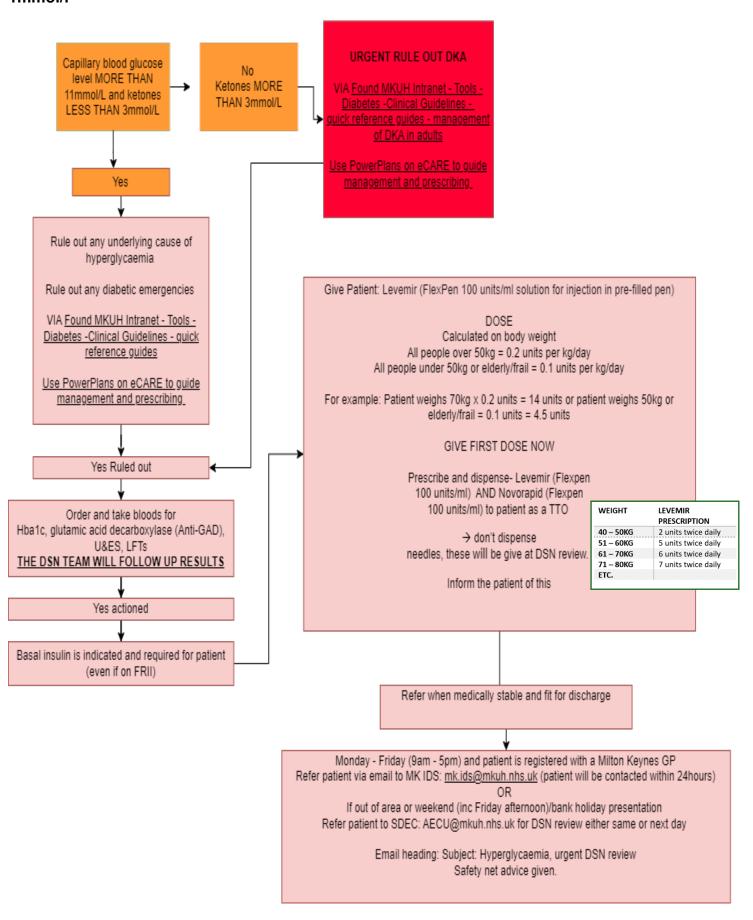
# 3.1 Capillary blood glucose level MORE THAN 11mmol/l and Ketones LESS THAN 1mmol/l





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# 3.1.1 Capillary blood glucose level MORE THAN 11mmol/l and Ketones MORETHAN 1mmol/l







### 4.0 Statement of evidence/references

Tables adapted from GIRFT Initial management of hyperglycaemia in adults in the emergency department

#### References:

NICE 2021: National Institute for Health and Care Excellence (2015; Last updated July 2022) Type 1 diabetes in adults: diagnosis and management. [NICE guideline NG17]. [Online]. Available from: https://www.nice.org.uk/guidance/ng17 [Accessed 10 september 2024]

Type 2 diabetes in adults: management. NICE guideline [NG28] [Online] Available from: https://www.nice.org.uk/guidance/ng28 (Accessed 10 September 2024)

**External weblink references:** If you refer to any external websites, please ensure you include the following disclaimer: 'Please note that although Milton Keynes University Hospital NHS Foundation Trust may include links to external websites, the Trust is not responsible for the accuracy or content therein.'



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## 5.0 Governance

## 5.1 Document review history

| Version number | Review date | Reviewed by       | Changes made        |
|----------------|-------------|-------------------|---------------------|
| 1.1            | 13/03/2024  | ED CIG            | Levemir dose advice |
|                |             |                   | table               |
| 1.1            | 01/01/2024  | Internal medicine | none                |
|                |             | CIG               |                     |

## **5.2 Consultation History**

Include staff in consultation who will be required to ensure the Guideline is embedded. This table should be completed in full even if no comments are received

| Stakeholders<br>Name/Board | Area of Expertise       | Date Sent     | Date<br>Received | Comments  | Endorsed<br>Yes/No |
|----------------------------|-------------------------|---------------|------------------|---|--------------------|
| Dr Asif Humayun            | Consultant              | Nov 2023      | Nov 2023         | Verbal –  Consider changing to an interactive app in future  Ensure follow up with GP/Or IDS/DISN | Yes                |
| Dr Ioannis Spiliotis       | Consultant              | April 2024    | April 2024       | Include Levemir dose advice table Information regarding TTO                                       | Yes                |
| Quan Hong Gan              | Principal<br>Pharmacist | April 2024    | April 2024       | Development of PGD for Diabetes Specialist nurse  | Yes                |
| Amman<br>Chasmawala        | Principal<br>Pharmacist | April 2024    | April 2024       | Development of PGD for Diabetes Specialist nurse  | Yes                |
| Jayne plant                | Library                 | March<br>2024 | March 2024       | Fine  | Yes                |
| Dr Asif Ali                | Consultant              | Sept 2024     | Sept 2024        | Verbal – fine   | Yes                |
| Jacqui Harrison            | DSN                     | Sept 2024     | Sept 2024        | Verbal – fine   | Yes                |
| Munira Khimani             | DSN                     | Sept 2024     | Sept 2024        | Verbal – fine   | yes                |
|                            |                         |               |                  |   |                    |
|                            |                         |               |                  |   |                    |
|                            |                         |               |                  |   |                    |
|                            |                         |               |                  |   |                    |

## 5.3 Audit and monitoring

How will compliance of this Guideline be evidenced?.



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| Audit/Monitoring<br>Criteria | Tool | Audit<br>Lead | <br>Responsible<br>Committee/Board |
|------------------------------|------|---------------|------------------------------------|
|                              |      |               |                                    |
|                              |      |               |                                    |
|                              |      |               |                                    |

## **5.4 Equality Impact Assessment**

As part of its development, this Guideline and its impact on equality has been reviewed. The purpose of the assessment is to minimise and if possible remove any disproportionate impact on the grounds of race, gender, disability, age, sexual orientation, religion or belief, pregnancy and maternity, gender reassignment or marriage and civil partnership. No detriment was identified. Equality Impact assessments will show any future actions required to overcome any identified barriers or discriminatory practice.

|   |                   | Equality Impact Assessment |  |                                       |  |
|---|-------------------|----------------------------|--|---------------------------------------|--|
| Division  | Internal medicine |                            | Department   | Diabetes                              |  |
| Person completing the EqIA  | Paige Bell        |                            | Contact No.  | Paige.bell@mkuh.nhs.uk                |  |
| Others involved:  |                   |                            | Date of assessment:  | 10/09/2024                            |  |
| Existing policy/service   |                   |                            | New policy/service   |                                       |  |
| Will patients, carers, t  |                   |                            |  |                                       |  |
| If staff, how many/whi  |                   |                            |  |                                       |  |
|   |                   |                            |  |                                       |  |
| Protected characteristic  | Any impact?       |                            |  | Comments                              |  |
| Age   | NO                |                            | ct as the policy aims to re<br>nent for patients and staff | ecognise diversity, promote inclusion |  |
| Disability  | NO                | ]                          |  |                                       |  |
| Gender reassignment   | NO                |                            |  |                                       |  |
| Marriage and civil partnership  | NO                |                            |  |                                       |  |
| Pregnancy and maternity   | NO                |                            |  |                                       |  |
| Race  | NO                | ]                          |  |                                       |  |
| Religion or belief  | NO                |                            |  |                                       |  |
| Sex   | NO                | ]                          |  |                                       |  |
| Sexual orientation  | NO                |                            |  |                                       |  |
| What consultation me carried out?                                     | thod(s) have you  | Discussion                 | with colleagues  |                                       |  |
| How are the changes/amendments to the policies/services communicated? |                   |                            | rsletter, Teams, Ward m<br>partment visit                  | anagers/matrons, Diabetes study       |  |
| Review date of EqIA   |                   |                            |  |                                       |  |





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## **Checklist for Guideline and guidelines documentation**

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| Date of approval:  |                               |                       |       |  |  |
| Review date:   |                               |                       |       |  |  |
| Approval Group/approve   | ed by (according to policy re | equirements):         |       |  |  |
| Last review date:  |                               |                       |       |  |  |
| Unique Identifier: if know   | vn (new documents will be     | assigned at publicati | on) 🗆 |  |  |
| Status: Approved   |                               |                       |       |  |  |
| Version numbers are the  | e same throughout docume      | nt                    |       |  |  |
| Scope: Who will use this   | s document?                   |                       |       |  |  |
| To be read in conjunction  | on with the following docume  | ents:                 |       |  |  |
| Are there any eCARE in   | nplications?                  |                       |       |  |  |
| Latest CQC fundamental standards referenced: Trust intranet page with                |                               |                       |       |  |  |
| <u>fundamental standards</u>   |                               |                       |       |  |  |
| Footers completed to match main page : (on all pages)                                |                               |                       |       |  |  |
| References are updated (contact the library (Jayne Plant 3077) for help if required) |                               |                       |       |  |  |
| Consultation history includes key stakeholders required to embed                     |                               |                       |       |  |  |
| document. Pharmacy are consulted if the document contains medication                 |                               |                       |       |  |  |
| Audit and monitoring criteria is completed and clear (where possible                 |                               |                       |       |  |  |
| reference the relevant section of the policy)  |                               |                       |       |  |  |
| Include full & correct consultation history  |                               |                       |       |  |  |
| Dissemination should be clear  |                               |                       |       |  |  |
| Check relevant hyperlinks work   |                               |                       |       |  |  |
| Completed by name: Position: Division Date   |                               |                       |       |  |  |
| (DD/N  |                               |                       |       |  |  |
|  |                               |                       |       |  |  |