










# Recommended algorithm for screening hyperglycemia in patients admitted to hospital during these times by Ministry of Health & Family Welfare, Government of India.



## A suggested algorithm for screening of hyperglycemia in patients admitted to a special care facility

|                                   |   |   |                                   |   |  |
|-----------------------------------|---|---|-----------------------------------|---|--|
| <b>Step 1</b>                     |          | Do a random capillary blood glucose (CBG) at time of hospital admission   |                                   |   |  |
| <b>Step 2</b>                     |    | Perform a pre-meal and 2-hr post-meal CBG with the first major meal in the hospital   |                                   |   |  |
| <b>Step 3</b>                     |    | Send blood for FPG and HbA1c next morning if lab facilities are available   |                                   |   |  |
| <b>Step 4</b>                     | Monitor (CBG), BBF, BL, BD and AD for at least 2 days for underlying hyperglycemia if any of the test values are high   | <table border="1"> <tbody> <tr> <td data-bbox="766 1344 989 1601">           Random<br/>CBG <math>\geq</math><br/>180 mg/dl         </td> <td data-bbox="989 1344 1212 1601">           Pre-meal<br/><math>\geq</math>140 mg/dl<br/>Post-meal<br/><math>\geq</math>180 mg/dl         </td> <td data-bbox="1212 1344 1447 1601">           FPG<br/><math>\geq</math>110 mg/dl<br/>HbA1<br/><math>\geq</math>6.0%         </td> </tr> </tbody> </table> | Random<br>CBG $\geq$<br>180 mg/dl | Pre-meal<br>$\geq$ 140 mg/dl<br>Post-meal<br>$\geq$ 180 mg/dl | FPG<br>$\geq$ 110 mg/dl<br>HbA1<br>$\geq$ 6.0% |
| Random<br>CBG $\geq$<br>180 mg/dl | Pre-meal<br>$\geq$ 140 mg/dl<br>Post-meal<br>$\geq$ 180 mg/dl   | FPG<br>$\geq$ 110 mg/dl<br>HbA1<br>$\geq$ 6.0%  |                                   |   |  |
| <b>Step 5</b>                     | Initiate pharmacotherapy if any of the test values meets the given glycemic thresholds  | <table border="1"> <tbody> <tr> <td data-bbox="766 1601 989 1821">           Random<br/>CBG <math>\geq</math><br/>250 mg/dl         </td> <td data-bbox="989 1601 1212 1821">           Pre-meal<br/><math>\geq</math>150 mg/dl<br/>Post-meal<br/><math>\geq</math>200 mg/dl         </td> <td data-bbox="1212 1601 1447 1821">           FPG<br/><math>\geq</math>126 mg/dl<br/>HbA1<br/><math>\geq</math>6.5%         </td> </tr> </tbody> </table> | Random<br>CBG $\geq$<br>250 mg/dl | Pre-meal<br>$\geq$ 150 mg/dl<br>Post-meal<br>$\geq$ 200 mg/dl | FPG<br>$\geq$ 126 mg/dl<br>HbA1<br>$\geq$ 6.5% |
| Random<br>CBG $\geq$<br>250 mg/dl | Pre-meal<br>$\geq$ 150 mg/dl<br>Post-meal<br>$\geq$ 200 mg/dl   | FPG<br>$\geq$ 126 mg/dl<br>HbA1<br>$\geq$ 6.5%  |                                   |   |  |

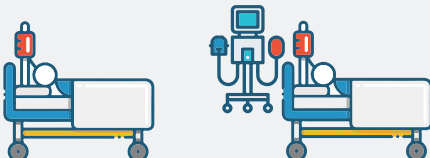
**Diabetic Diet** (if Values above cut-off range of Step 4)

If BG level is  $\geq 250$  mg/dl check urine/blood ketone levels if positive, immediately consult endocrinologist/physician.


Consider repeating monitoring (even when initial blood glucose monitoring is normal) when:  
 a) steroids or drugs with a potential to affect glycemic status are initiated  
 b) there is an increase in severity of illness (to account for stress hyperglycemia)

**Blood glucose monitoring strategy for individuals with no evidence of stress hyperglycemia or undiagnosed diabetes at the initial screen**


**No hyperglycemia at admission**



Severity of illness increases



steroid

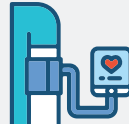


Patient is initiated on steroids


Re-initiate blood glucose monitoring BBF, BL, BD, AD for at least 2 days, which can be decreased to twice a day if values are normal

---


**High Risk individuals**



Cardiovascular disease



Obese



Age > 50 years

Monitor blood glucose twice a day every 3-4 days

A patient with normal initial glycemic profile may develop stress hyperglycemia during the course of illness. Glucocorticoids as a treatment of primary disease may also contribute to hyperglycemia in such an individual.

**Glycemic assessment using blood glucose monitors should be an ongoing dynamic process and not a one-time event.**

Clinical guidance on diagnosis and management of diabetes in COVID-19 patient management facility (version 2.0). Available at <https://www.mohfw.gov.in/pdf/ClinicalGuidanceonDiagnosisandManagementofDiabetesatCOVID19PatientManagementfacility.pdf>. Last accessed on 16th June 2021.

Abbreviations: BBF: Before breakfast, BL: Before lunch, BDN: Before dinner, ADN: After dinner