

Hyperglycaemia in acute illness: 3-year risk of type 2 diabetes



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		Glucose, mmol/L									
		6	6.5	7.1	8	9	10	11.1	13	15	
Men	Age, years	45	2%	2%	3%	5%	7%	10%	12%	17%	20%
	55	2%	3%	4%	7%	9%	12%	16%	21%	25%	
	65	2%	3%	4%	6%	9%	12%	15%	20%	24%	
	75	2%	2%	3%	4%	6%	8%	11%	14%	18%	
	85	1%	1%	1%	2%	3%	4%	5%	7%	9%	
Women	Age, years	45	2%	2%	3%	4%	6%	8%	10%	14%	17%
	55	2%	3%	4%	6%	8%	10%	13%	18%	22%	
	65	2%	3%	4%	5%	7%	10%	13%	17%	21%	
	75	1%	2%	2%	4%	5%	7%	9%	12%	15%	
	85	1%	1%	1%	2%	2%	3%	4%	6%	8%	

Advice and testing

This tool allows clinicians to interpret (random) hospital admission glucose levels for patients requiring an emergency medical or surgical admission to hospital, and who are not known to have diabetes.

Low risk
<5%

Risks comparable to those in the general population. Offer brief advice on the risks of developing diabetes, the benefits of a healthy lifestyle and modifying risk factors.

High-risk
5% to 15%

At elevated risk of type 2 diabetes. Offer a blood test, either fasting plasma glucose measurement following recovery from acute illness, or HbA1c, depending on local guidance.

Very high-risk
> 15%

As for high-risk, although clinicians may wish to give a higher priority to reaching a definitive diagnosis prior to discharge from hospital.

This chart indicates the 3-year risk of incident type 2 diabetes based on age, sex and (random) glucose in mmol/L. It was developed and validated in patients who had an emergency medical or surgical admission to a Scottish hospital.

The advice provided above modifies the recommendations provided in National Institute for Health and Care Excellence (NICE) guidance on the risk assessment and identification of patients with type 2 diabetes (www.nice.org.uk/guidance/PH38/) so that they are applicable for patients who have been admitted to hospital with an acute illness.

Patients assigned to the high-risk category based on this tool have a similar risk of type 2 diabetes to patients similarly assigned on the basis of the tools endorsed in the NICE guidance.

This tool was developed and validated in a predominantly white population and has not been validated in groups at increased risk of type 2 diabetes.