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Title: Recording and response to hyperglycaemia in patients presenting with infective exacerbations of COPD

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Body: It is established that acute hyperglycaemia confers a poorer prognosis on a range of illnesses including myocardial infarction and stroke. Recent studies have suggested a similar effect in patients admitted with exacerbations of chronic obstructive pulmonary disease (COPD) (Baker, EH et al Thorax 2006 Apr;61(4):284-9). The aim was to assess the quality of blood sugar (BM) recording in patients with exacerbations of COPD. If the BM ≥ 7 we studied how this affected length of admission and if treatment was given. We performed a prospective audit on patients with known COPD, admitted with an infective exacerbation. Data was collected on an initial 19 patients. Regular recording of BMs on the drug chart was then initiated and a further 20 patients sampled. Comparison was made with local guidelines.

Patient demographics

	Round 1	Round 2
Mean age	77	74
M:F	11:8	13:4
Diabetic	0 (0%)	4 (19%)
Initial BM measured	19 (100%)	20 (100%)

Round 1: 12 patients (63%) started steroids on admission. 6 (50%) had a daily BM chart. 4 of these patients had an untreated BM recording ≥ 7 . Round 2: 17 patients (85%) started steroids on admission. 16 (94%) had a daily BM chart. 15 (94%) of these patients had a BM recording ≥ 7 . 3 of these patients were treated with insulin.

Average length of stay (days)

	Round 1	Round 2
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Initial BM \geq 7	13	10
Initial BM $<$ 7	8	9

Recording of BMs for patients on steroids is vital. Initial monitoring of glycaemic status in these patients was inadequate but following institution of standardised monitoring 94% were demonstrated to have episodes of hyperglycaemia. This audit supports studies showing longer hospital stays for patients with untreated high BMs during their admission.