BACKGROUND
Around 1 in 6 (17%) hospital beds are occupied by a person with diabetes, and 1 in 15 (7%) of the total population have diabetes1. Many in-patients with diabetes will have erratic blood sugars, which often lead to poorer health outcomes2. It is advisable for clinicians to intervene when 2 blood sugar readings are greater than 10 mmol/L. PRN insulin may or may not be indicated.

AIM
Our audit attempts to evaluate clinicians’ knowledge on the pharmacokinetics of Actrapid, prescribing practices and whether there is a need for a guideline on Actrapid prescribing at Queen Elizabeth Hospital (QEH), Woolwich.

METHOD
Convenient sampling was used to survey 77 doctors of all grades. The survey included a blank drug chart on which to prescribe PRN Actrapid and provide instructions on when to give it. Further questions tested doctors knowledge on the pharmacokinetics of Actrapid.

RESULTS
Of the doctors surveyed, 87% of them prescribed PRN Actrapid. 23% identified Actrapid as a short acting. 23% of doctors opted not to write instructions with PRN Actrapid. Results on clinicians knowledge of pharmacokinetics of Actrapid are shown below 3.

CONCLUSION
These results highlight a lack of knowledge in the pharmacokinetics of Actrapid among doctors regardless of grade.

RECOMMENDATION
This audit has demonstrated a need for teaching and accessible guidelines on how to manage high blood sugars including when to use PRN insulin. A re-audit doctors once PRN insulin guidance is made available at QEH should show an improvement.

TAKE HOME TREATS
PRN Actrapid is frequently prescribed but poorly understood. So STOP and think…

S – sugar source. When/what was last meal, drink or snack in relation to blood test?
T – timing. Is insulin correctly prescribed? Mealtime vs night? When was last/next dose?
O – omission. Check for omitted or incorrect doses of insulin.
P – preferred. PRN of patient’s own regular fast acting insulin, adjust the dose before the ‘high’

If you must prescribe PRN Actrapid, review the patient (whether alert and body size), drug chart, creatinine (how fast will insulin be cleared – may lead to hypoglycaemia), ketones (is infusion needed?) and look at the blood glucose trend (adjust insulin doses accordingly). If in doubt – consult!