

Effectiveness of a 5 minute insulin safety video on HCP's knowledge and inpatient insulin errors

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Background:

Despite numerous and varied education initiatives, our monthly audits found a disappointing increase in insulin errors in our hospital.

Aim:

To explore the impact of a short diabetes educational video on staff knowledge and insulin errors.

Methods:

The 5 minute Cambridge Diabetes Education Programme "Safe use of insulin in hospital" video was shown to 620 clinical staff (doctors, nurses, advance healthcare practitioners and pharmacists) over 2 weeks. Just prior 90 staff chosen at random completed a ten item questionnaire to ascertain insulin safety knowledge. Two months later knowledge was re-evaluated using the same questionnaire and the impact on insulin errors determined.

Results:

There was an improvement in staff knowledge in nine of the ten questions. Significantly, when basal insulin should be administered (incorrectly answered 80.7% v 53.3%; $p < 0.001$), the method for re-suspending pre-mixed insulins (52.4% v 7.8%; $p < 0.001$) and the consequence of omitting insulin in a person with type 1 diabetes (incorrectly answered 10.2 v 2.2%; $p < 0.04$). In the month before implementing the video insulin errors across the population with diabetes was 26% which reduced to 14% ($p < 0.028$) in the following month (NaDIA 2017 = 18%).

Conclusion:

This 5 minute video was effective in improving knowledge of insulin safety ascertained one month after viewing and was associated with a reduction in insulin errors. Being very brief, visual and accessible from a mobile phone, tablet or projected from a laptop it has the benefit of being able to engage large numbers of staff in a relatively short time as a groups or individually on their wards.