Administration of oral nutritional supplements and enteral tube feeds on inpatient renal wards

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Introduction:
This audit comes in response to an incident where a patient receiving haemodialysis experienced several episodes of hyperkalaemia. After excluding dietary and medical causes, a potential source of potassium was identified as being the incorrect Oral Nutritional Supplements (ONS).
This audit set to identify how many patients, who were prescribed oral or enteral nutritional products, received the correct product, as administered by nursing staff on two renal wards.
As many as 35% of people with Chronic Kidney Disease are at risk of malnutrition on admission to hospital¹. ONS are commonly prescribed on medication charts to support oral intake and to minimise exacerbation of malnutrition. Where there is no oral route available or oral intake is less than 60% of nutritional requirements, enteral tube feeds (ETF) are recommended². Observation on two renal wards has shown that these are being given incorrectly which can lead to error.
Medication errors are common and error rates are difficult to quantify³. There is very little published data on ONS and ETF prescribing and administration errors in the hospital setting.

Methods:
All patients were observed at bedside being administered their prescribed ONS or ETF. The type, volume and time administered was recorded and compared with that prescribed on the patient medication chart. Where these were not given on time, a further bedside observation was undertaken approximately 30 minutes after. Any products administered after 30 minutes that were observed at bedside, were also included and the time recorded as not given within 30 minutes.

Results:
81 administrations were audited for patients prescribed either ONS or ETF. 82.3% administrations of ONS were observed, with 17.7% administrations not observed. 100% of ETF administrations were observed. Of the observed administrations of ONS, 60.7% used the correct product and 94.6% were given the correct volume of ONS. Only 17.3% administrations of ONS were given on time, rising to 39.1% after 30 minutes. Of the observed administrations of ETF, 91.6% used the correct product as it was prescribed on the patient medication chart. Only 63.6% of ETF were administered the correct volume. 33% of ETF administrations were given on time, rising to 50% after 30 minutes.
In total, only 66.1% of ONS and ETF administrations used the correct nutritional product as it was prescribed, with 33.9% being incorrect. 89.5% of all administrations were given the correct volume. The total number of administrations given on time, as prescribed was 19.7%. After 30 minutes, the total number of administrations increased to 40.7%.

Conclusion:
Patients routinely receive the incorrect nutritional product via the oral or enteral route. Most patients do not receive ONS or ETF on time. This suggests nursing staff may find difficulty in differentiating between nutritional products, which can impact a patient’s nutritional, electrolyte intake and fluid balance. Training and education on available nutritional products to nursing staff is crucial and should be reviewed regularly.