

Identifying areas for improving junior doctor education through the analysis of electronic referrals to the renal department in an acute hospital

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Background

Electronic referrals are a routine form of interdepartmental communication regarding a patient's care. Used effectively, electronic referrals have been shown to have both quantitative improvements, in reducing the delay from reviewing patients, and qualitative improvements.(1)(2) However, the inappropriate use of referral pathways has been well-documented, resulting in the overloading of a service or the delay of referral to a more appropriate service.(3) These inappropriate referrals may represent a gap in knowledge and thus an area for improving education. On this background, we sought to characterise and evaluate the referrals made to our renal department.

Methods

Electronic referrals made from all hospital departments to renal department in May and June 2019 were analysed, spanning the last clinical placement of the training year for junior doctors, by which time it is expected that trainee doctors would be able to make appropriate referrals, a core competency as laid out by the foundation programme curriculum.(4) Data was collected on patient demographics, stage of acute kidney injury (AKI) if present at the time of referral, data on the referring department, and the quality of the referrals made. Parameters for assessing referral quality include the presence of a specific question in the referral, and whether or not they met the criteria for renal referrals as defined by the hospital guidelines.

Results

A total of 142 electronic referrals to the renal department were made in the two months studied. The average age of patient was 69.0 years (range 23 to 97 years). 12.7% patients were in AKI Stage 1, 12.0% in Stage 2 and 26.1% in Stage 3.

31.7% of the patients had no AKI and 17.6% had AKI on a background of chronic kidney disease.

94.4% of referrals were accepted. The most common reason for rejection was improving renal function.

53.5% of referrals had asked specific question. 71.1% of referrals met the criteria for referrals to the renal department. The most common primary reason for referral were deteriorating AKI or failure to improve despite initial management (n=36), and AKI Stage 3 (n=35).

The most referrals were from emergency department and Medical Assessment Unit (n=42), cardiology (n=18), the short stay ward (n=15) and the surgical wards (n=13). Common reasons for referrals were advice on the management of AKI/hyperkalaemia, on the general management of patients with a renal history (transplant or dialysis patients), the management of AKI in decompensated heart failure, consideration of dialysis in heart failure patients, advice on the management of declining renal function or AKI with urinary retention.

24.6% out of all patients referred were transferred to the renal ward for further management, and 37.1% of these were dialysed.

Conclusion

We demonstrate that the majority of referrals (71.1%) have met the criteria for referrals to the renal department. However, our project has highlighted potential areas for improving education. In particular, the management of AKI, cardiorenal syndrome and declining renal function peri-operatively have been identified as common reasons for referral, representing a need for further education of junior doctors on these topics.