

Audit on management of Acute Kidney Injury

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Introduction

The Audit was carried out on the background of the NCEPOD report of 2009, "Acute Kidney Injury: Adding Insult to Injury 2009 and the recent NICE guidance

Key Findings of the NCEPOD report

- Only 50% of AKI care was considered good.
- Poor assessment of risk factors for AKI.
- Delay in recognising post-admission AKI in 43%
- Complications of AKI were missed, avoidable and managed badly

NICE guidance measures audited

- Was the cause of AKI identified and recorded
- Did the patient have a urine dip done
- Was there a fluid balance chart
- Was the urine output recorded
- Was medication reviewed
- Did the patient have nephrotoxic medication prescribed
- Were nephrology referral was indicated, was this done timely

METHOD

Data collected over 6 weeks (October-November)

- Prospective study
- Patients with AKI identified using the e-lab reporting system
- Case notes identified and reviewed
- Assessment, investigation and management compared against the recent NICE guidance

Results

61 patients included
38 M : 23 F
75% were > 65yrs old
More than two thirds were on medical wards

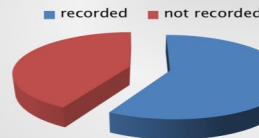
56% developed AKI in the community
44% developed AKI in hospital

Risk factor	Frequency
Age >65	46
Sepsis	28
CKD	25
Diabetes mellitus	18
Heart failure	18
Hypertension	17
ACEI/ARB	12
Surgery	9
Malignancy	6
Diarrhoea +/- vomiting	5
Liver disease	3
NSAIDs	2

Investigations and Monitoring



urine output



Results continued..

Urine dip



Medication and Volume

Volume status assessed in 84%

Intravenous fluid prescribed in 86%

Nephrotoxic medication prescribed in 20%

Medication not reviewed in 23% after development of AKI

Nephrology review/discussion

30 pts met the indication for nephrology referral .

Of these 17 were referred/discussed with nephrology within the recommended 24 hrs

Conclusions

- AKI is predominant in medical admissions
- Majority of the patients develop it in the community
- There is a deficiency in basic but vital investigations eg urinalysis/USS
- Recording of urine output was poor
- Review of nephrotoxins is sub-optimal
- Nephrology input perhaps not sort out as frequently as advised

Recommendations

- Ongoing education of medical/nursing personnel
- Continued audit and research into the epidemiology of AKI particularly in the community
- Better assessment of risk factors for AKI
- Introduction of the renal pharmacy medication optimisation kit

References

NCEPOD Report: Adding Insult to Injury 2009

NICE guidance AKI www.nice.org.uk/guidance/cg169

(Use of Electronic Results Reporting to Diagnose and Monitor AKI in Hospitalized Patients, N Selby et al. CJASN