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
Other disease | 3
NSAIDs | 2

Investigations and Monitoring

USS within 24hrs

| | Yes (57%) | No (43%)
---|---|---
Urine output | recorded | not recorded

Results continued...

Urine dip

Done in 53%
Not done in 47%

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 nephrotoxic 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)