Development of an Acute Kidney Injury In patient service

stephen.trowbridge@rbch.nhs.uk & Helen.partridge@rbch.nhs.uk
Bournemouth Diabetes and Endocrine Centre
Royal Bournemouth General Hospital

Acute Kidney Injury (AKI) is currently a national hot topic for interventional management. In August 2014 Dr Partridge (Consultant physician) and S.Trowbridge (Diabetes Nurse Specialist) developed a grass roots service for hospital in-patients with stage 1,2 or 3 Acute Kidney Injury

AKI stage 1,2,3 e-alerts forwarded to AKI team daily

8-4 Monday-Friday
Nurse specialist filters AKI alerts to identify suitable patients and visits those with stage 2-3

Out of Hours and weekends
(NEWS alert only)
Medical and critical care outreach teams

8-4 Monday-Friday
Ward based **Pharmacist**
Highlight AKI stage 1 in Notes and prescription chart

- Intranet pathways and protocols
- Physical assessment
- Fluid status assessment and balance
- Urine dipstick/ RUSS if indicated
- Hold renal insults
- Appropriate venous and arterial bloods
- Nephrology referral when necessary

- Prescription chart AKI alert stickers
- Care bundle alert stickers
- Escalation plan alert stickers

AKI Alert

- ITU escalation planning
- Dorchester renal unit liaison

Education
To secondary and primary care Medical and nursing teams

Results

Secondary care

	Pre-intervention	Post -intervention (N= 96 reviewed)
AKI Staged E-alerts	N=188	N=148
RIP	N=23 (14%)	N=8 (5%)
Readmission to Secondary care	N=45 (27%)	N= 14 (9%)
Length of stay (Mean / sd)	N=15 (19)	N=9 (9) (p=0.002)
Ward based Markers	N=53	N=96
Urine dipstick	1/2%	100%
Fluid balance Commenced	34 / 64%	100%
Renal insults Witheld	29 / 54%	100%
Daily U+Es	40 / 75%	100%
AKI documented and risk assessment	18 / 34%	100%

Primary care

N=108 AKI alerts managed by primary care (random sample)

Stage	1	2	3
Total	90 (83%)	11(10%)	7(7%)
RIP (13%)	11 (10%)	2(2%)	1
Hospital Admission	11 (10%)	5 (5%)	4 (4%)
No follow up Blood tests Performed	29 (32%)	3 (27%)	0
Those admitted Mean Length of Stay (n=20)	7.1	5.3	7

***Did patients have a follow up U+Es blood test performed N=54 (50%)**

Weeks	<1	<2	<3	<4	>1 month
N=	15	18	3	9	9

Summary

Developing this service has presented many challenges particularly in identifying appropriate targets for measurement and audit, e alerts for AKI staging has not increased demand to review patients and we see future service needs focusing on education and early intervention by primary care and rapid renal access clinics for both primary and secondary care to reduce hospital bed days