An NCEPOD based audit cycle assessing the impact of a surgical liaison service on the care of older people admitted under the care of the surgical team at the University Hospital of North Tees.

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Aims

- To highlight areas where we perform well and where we could improve the care of older people admitted under general surgery
- To improve the identification of frail patients admitted to surgical wards
- To assess the current use of the medical teams assessing surgical patients and improve the utilisation of the Elderly Care team.

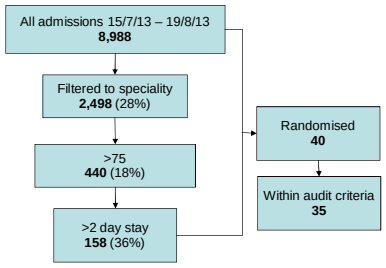
Methods

- Retrospective audit utilising a modified audit tool from NCEPOD 2010 “An Age Old Problem”
- Round 1 – 35 patients, aged >75, retrospective data collection from July to August 2013
- Intervention – Surgical liaison service started mid-December 2013
- Presented May 2014 at surgical clinical governance meeting
- Round 2 – 35 patients, aged >75, retrospective data collection from January to February 2014

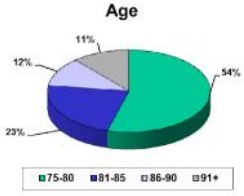
Patient Stay by Age

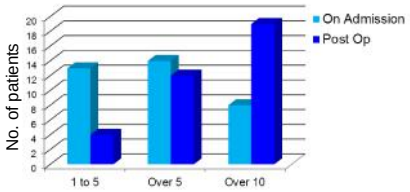
Age Range	Number	% Total	Average length of stay (days)	Total Bed days	% of total bed days
<55	1,180	47%	1.1 (range: 0-25)	1,298	33.8%
55-64	461	18%	1.3 (range: 0-24)	599	15.6%
65-74	413	17%	1.7 (range: 0-29)	702	18.3%
75-84	339	14%	2.1 (range: 0-30)	712	18.6%
>85	105	4%	5.0 (range: 0-27)	525	13.7%
TOTAL	2,498				

Patient Selection and Demographics

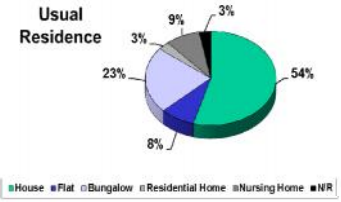


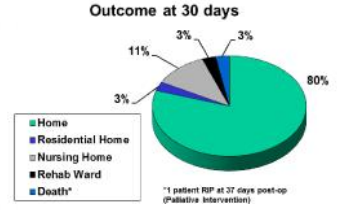
Age	Rd 1	Rd 2	Usual Home	Rd 1	Rd 2
75 – 80	19	12	House	19	15
81 – 85	8	13	Flat	3	3
86 – 90	4	8	Bungalow	8	8
> 91	4	2	Sheltered	0	1
Gender	**Rd 1**	**Rd 2**	Resi Home	1	6
Male	18	19	Nursing Home	3	2
Female	17	16	Unknown	1	0





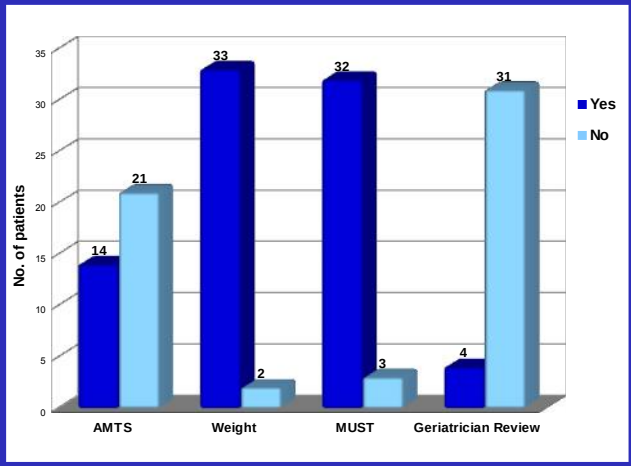
Outcome measures and complications following surgery





Surgical Procedure	Post op Complications
Trans-anal endoscopic operation for excision of rectal cancer	Anaemia requiring transfusion. Hypotensive. Admitted 3 weeks later with diarrhoea and transferred to nursing home.
Right total knee replacement	UTI, Confusion, Hyponatraemia (119), Hypotension
Laparoscopic cholecystectomy	Low BP during surgery. Post-op vomiting, required NG tube ITU admission New onset of fast AF
Renal embolisation (performed by radiologist)	Patient had severe haematuria secondary to renal cancer. Transfused on at least 3 occasions. Required renal embolisation on 2/8/13 (palliative procedure). RIP.
Transurethral resection of prostate	Significant haematuria post/op. Cystoscopy and bladder washout and diathermy Readmitted due to frank haematuria
Incision and drainage of left ischio-rectal abscess	Confusion documented but AMTS 9/10

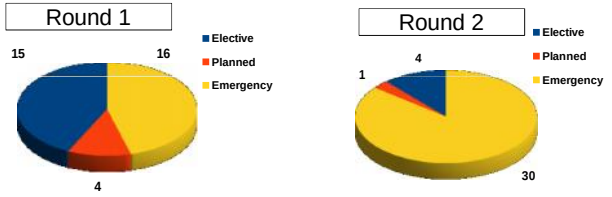
Key Results of Round 1



Intervention and re-audit

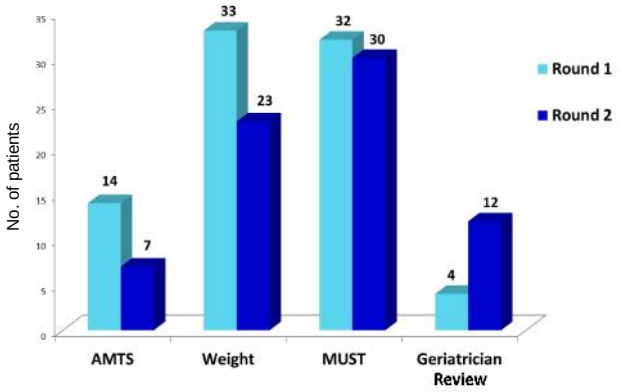
- Surgical Liaison Service (From Dec 2013)
- Geriatrician attendance at morning emergency admission meeting
- Reviewed patients identified in the meeting and ward referrals (verbal or written)
- Aim to improve the number of patients reviewed by Geriatrician, support surgical ward staff and improve patient outcomes
- Survey March 2014
- Audit presented May 2014
- Updated audit tool used for round 2

Mode of Admission



Main Results

- Improved number of patients reviewed by Geriatrician
- Reduced number of weights recorded, due to less elective patients (4/35)
- MUST still calculated
- Reduced AMTS (often done at the pre-op assessment clinic as part of proforma)

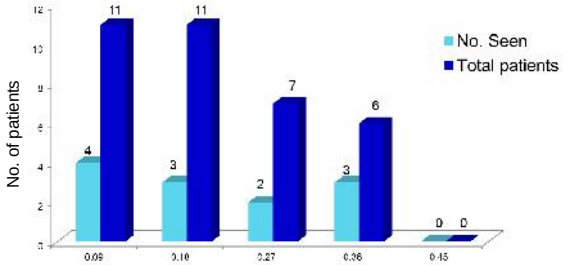


Survey of surgical team regarding service

- Good range of MDT (4 Con, 2 Regs, 4 SHOs, 7 F1s, 1 SN and 5 Senior Nurses, 4 Physios, 1 OT, 3 Dietitians)
- 29/31 felt that it was more difficult or much more difficult managing older patients compared to younger patients
- 28/31 felt that it was easier to get a medical review.
- Some quotes of their view of the service –
- *"The Elderly Care Team are an invaluable service which should be continued as I believe it improves patient care."* Junior doctor
- *"Discharge planning, holistic care, seeing issues and dealing with them proactively rather than re actively."* Ward Sister
- *"Elderly patients are receiving the care that they deserve, and are moved to a more suitable area if needed far quicker."* Ward Manager

Were we reviewing appropriate patients?

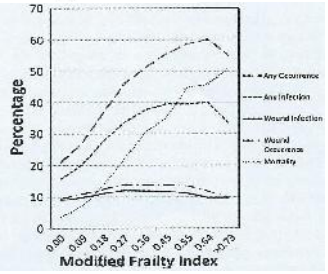
Number of patients seen by Geriatrician with increasing MFI



Modified Frailty Index (MFI)

Farhat et al, 2011 developed MFI, a deficit accumulation model of frailty (11 items) Developed in emergency admission unit

- Diabetes Mellitus; Congestive Heart Failure; Hypertension; TIA/CVA; Functional status 2 (not independent); Myocardial infarction; Peripheral vascular disease; CVA with neurological deficit; COPD/pneumonia; Impaired sensorium; PCI/PCS/Angina.
- MFI = No. of variables / 11



Conclusions

- Increasing elderly population who have longer admissions
- Elective and emergency patients present different challenges
- Geriatrician input is required for better outcomes
- Further education is required to achieve excellent patient care

Future of Service

- Starting a monthly pre-op assessment frailty clinic
- Embed current service, expand service in future
- Ward staff education – particularly AMTS, Weight, MUST

Acute Kidney Injury (AKI)

- Updated audit tool included section on AKI (only one data set)
- Only 3 / 35 patients had AKI on admission, medication reviews did take place (ACEI/ARB and Diuretics stopped)
- All 3 patients had MFI of 0.18 or higher
- 1 patient developed AKI post-op, again medication review done (ARB stopped)

Acknowledgments

Audit Data Collection Team – Dr Katsiaryna Andreichanka, Dr Jatin Thakkar, Dr Hannah Dunton, Dr Clara Vella, Dr Shwe Htun, Dr Rebecca Wright

References

- Elective & Emergency Surgery in the Elderly – An Age Old Problem (2010)
- Farhat JS, Velanovich V, Falvo AJ,, Horst M, Swartz A, Patton JH, Rubinfeld IS. Are the frail destined to fail? Frailty Index as predictor of surgical morbidity and mortality in the elderly. 2011. Journal of Trauma and Acute care and surgery. 72; 6 : 1526 – 1531.