

Audit on Hospitalisation during (Chemo)Radiotherapy for Head and Neck Cancers

NESCN Head & Neck NSSG

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Background

- CRT & RT can cure inoperable H&N cancer
- It also causes significant side-effects which can put the patient at risk and compromise treatment efficacy
- In the network, different approaches are taken to supportive management (feeding)
- We aim to deliver radical radiotherapy as an outpatient

Aims

1. To gain knowledge of admission rates for patients undergoing treatment
2. To identify variations across the NECN
3. To analyse factors affecting any variation and share good practice

Standard of Care

Evidence of Quality	Standard	Exceptions
Chemoradiotherapy for head and neck cancer is given on an outpatient basis	100%	None

Methods

- Time Period: 4 months
 - 1st September to 31st December 2014
- First Audit
- Prospective
- Identification of patients admitted during radical dose radiotherapy or concurrent chemo-radiotherapy
- Data Collection Form
- Case note & IT systems review
- Excel Spreadsheet
- Simple Statistical Analysis

Results

1. Patient demographics
2. Disease characteristics
3. Systemic treatment history
4. Radiotherapy history
5. Admission patterns
6. Feeding history
7. Radiotherapy numbers
8. Admission rates
9. Other observations

Patient demographics

Number of patients admitted

NCCC	15
SRH	3
JCUH	7
DMH	1
N Tees	1
TOTAL	27

Age (years)

Median	57
Range	34 - 76

Gender

Male	16	(59%)
Female	11	(41%)

Co-morbidities

Yes	17	(63%)
No	10	(37%)

Disease characteristics

Cancer site

Nasal cavity/Paranasal sinus	1	(4%)
Nasopharynx	3	(11%)
Oral cavity	1	(4%)
Oropharynx	12	(44%)
Unknown primary	3	(11%)
Hypopharynx	3	(11%)
Larynx	4	(15%)

Stage groupings

I	3	(11%)
II	1	(4%)
III	4	(15%)
IV	19	(70%)

Systemic treatment history

(Chemo)radiotherapy		
Adjuvant	5	(19%)
Definitive	22	(81%)
Concurrent treatment	22	(81%)
Radiotherapy alone	5	(19%)
Concurrent regime		
Cisplatin	19	(86%)
Cetuximab	3	(14%)
Number of cycles		
Median	4	
Range	0 - 5	

Radiotherapy history

Number of radiotherapy fractions planned

20	3	(11%)
30	24	(89%)

Number of radiotherapy fractions pre-admission

Median	16
Range	2 - 28

Admission patterns

Inpatient duration (days)

Median	11	(1 – 35)
NCCC/SRH	9	(1 – 18)
JCUH/DMH/NTH	15	(1 – 35)

Most common reasons for admission

NG/J insertion or poor oral intake	10
Chest infection	8
Nausea/Vomiting	6
Pain control	5
Mucositis	5
Nutritional support	4
Confusion	2
Other	8

Feeding history

	NCCC	SRH	JCUH	NTees	DMH	TOTAL
Oral	3	2	2	1	0	8
NG	10	0	0	0	0	10
PEG	2	1	5	0	1	9
TOTAL	15	3	7	1	1	27

71% PEG fed at JCUH
67% NG fed at NCCC

Radiotherapy numbers

By cancer centre

Total number definitive (chemo)radiotherapy

NCCC	73
JCUH	49

Total number palliative radiotherapy

NCCC	20
JCUH	4

Admission rates

By cancer centre

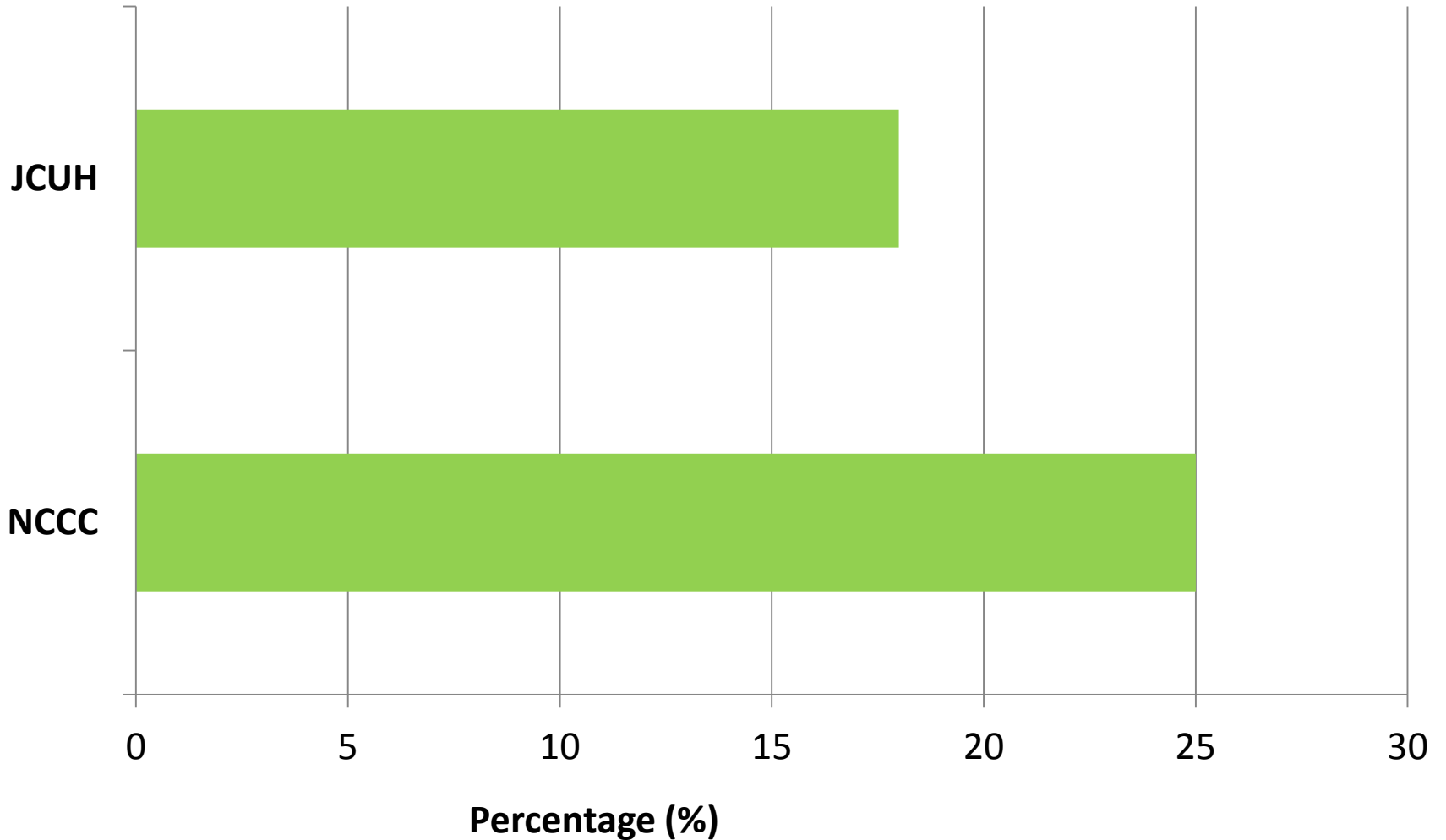
NCCC

Number	18
Total	73
Rate	25%

JCUH

Number	9
Total	49
Rate	18%

Admission rates by Cancer Centre



Some other observations

- Post-radiotherapy admissions
- Palliative admissions

Not original objective, but patients admitted after RT & palliative patients were recorded.

Post-radiotherapy admissions

Site	Oral	NG/J	PEG	TOTAL
NCCC	0	7	1	8
JCUH	0	1	1	2
SRH	5	0	0	5

Palliative admission during/after radiotherapy

Site	Number
NCCC	4
SRH	1
JCUH	0

Summary

Factor	Fact	Other information
Most common tumour	Oropharynx	44%
Most common stage	IV	70%
Concurrent treatment	81%	86% Cisplatin
Median No. fractions pre-admission	16	Wide range
Median inpatient duration	11 nights	9 in North; 15 in South (but wide range)
Most common reasons for admission	1. NG insertion/poor oral intake	2. Chest infection
Most common feeding method	NCCC: NG (67%)	JCUH: PEG (71%)
Palliative treatments*	NCCC treat 4 times JCUH	
Admissions post-radiotherapy*	Seem to be more in North of region	

*Not principle objective of audit and results may be less reliable.

Conclusion

- The Standard: “(Chemo)radiotherapy should be given as an outpatient in 100% of patients”
 - NCCC: 75%
 - JCUH: 82%
- We fail to meet this standard

Recommendations

- 100% is probably unrealistic – this is toxic treatment
- Papers talk about “Compliance” with treatment not admission rates
- If audit is re-run, worth extending to first 30 days after completion
- Also worth measuring the proportion with treatment interruptions and those who completed treatment
- TUBE feasibility study should also provide some useful information re: NG vs PEG

Contributors – thank you

- Dr Shahid Iqbal
- Dr Harish Rao
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- Dr Eleanor Aynsley
- Dr Peter Dunlop
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- Dr Charles Kelly
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Questions/Discussion