

## HOW INTELLIGENCE INFORMS PEER REVIEW

William Allum  
Chair  
Upper GI Clinical Reference Group  
NCIN

### National Cancer Peer Review What is it?

- Quality Assurance process
  - clinical
  - patient experience
    - quality of life
    - dignity
  - service commissioning
- Integral part of Improving Outcome
  - catalyst for change

## Background to National Cancer Peer Review Programme



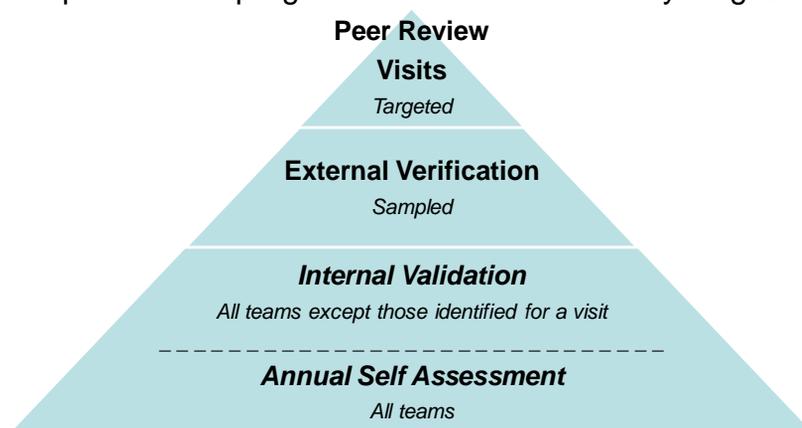
### Standards/measures

- ▶ First national 'standards' published in 2001
- ▶ Major revision as 'measures' in 2004
- ▶ Ongoing updating and extension as new national guidance becomes available (e.g. NICE Improving Outcomes Guidance)
- ▶ Revision in 2008
  - ▶ reduction in number of measures with removal of levels
  - ▶ revision of measures; some more challenging

## Methodological changes introduced for 2009/2010 NCPR



The peer review programme consists of four key stages:



## What has Peer Review achieved?

## National Cancer Peer Review Reports

---

- IOG Measures and Standards
- Team Structure
- Team Function
- Centre / Unit Facilities

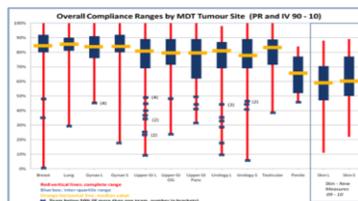
## Overall compliance per MDT tumour site



Fig: Overall compliance ranges per tumour site Peer Review 04 - 08 Adjusted



Fig: Overall compliance ranges per tumour site 2009 - 2010



## Upper GI Outcomes against the Measures - 2011-12



Teams Compliance	SA	IV	PR
100%	0	0	0
90-99%	9	0	0
80-89%	13	1	2
70-79%	6	1	2
60-69%	0	0	2
50-59%	0	0	1
40-49%	0	0	0
0-39%	0	0	0
Median		85%	
Range		52-97%	
Interquartile Range		79-88%	

Oesophago-Gastric Specialist Teams  
Good Practice - 2011-12



- Availability of minimally invasive and laparoscopic surgery
- Introduction of nurse led clinics
- Availability of EUS
- Increase of availability of specialist dietetic advice
- Increased contribution to the AUGIS dataset

Oesophago-Gastric Specialist Teams  
Immediate Risks and Serious Concerns  
- 2011-12



- No formal 24 hour on-call
- Endoscopic Ultrasound Service (EUS) availability
- No radiology access to images prior to discussion at SMDT
- Communication and pathways between local and specialist teams
- Lack of dietetic support
- Data collection
- Number of surgeons leading to too few procedures per surgeon
- Lack of cover for gastroenterologist
- Surgery undertaken at local units without IOG arrangements
- CNS support; Oncology support; Gastroenterology support, no dietician cover, no palliative care (all one MDT)



## Problems with Peer Review

- Huge burden of structure and process
- Resource intensive process
- Limited outcome data
- Box ticking exercise
- Limited feedback to clinicians

## Clinical Lines of Enquiry



- Clinical Indicators
- National and Local Data on Indicators
- Focus process on good clinical outcomes

## Principles of Clinical Indicators



- The data should be available nationally or readily available locally. Not intended to require further audit in themselves
- Metrics which can be used as a lever for change and for reflection on clinical practice and outcomes
- They may be lines of enquiry around clinical practice, or around collection of data items, rather than enquiry focused on the data itself
- May cover key stages along the patient pathway, including diagnosis, treatment and follow up
- There should be some consensus on national benchmarking data which can be used to inform the discussions

## Data Sources



- Hospital Episode Statistics (HES)
- National Cancer Services Analysis Team
- National Cancer Waits
- National Cancer Data Repository
  - Cancer Registry
  - UK Cancer Information Service
- National Specialty Audits
- National Cancer Research Institute

## Centre Workload

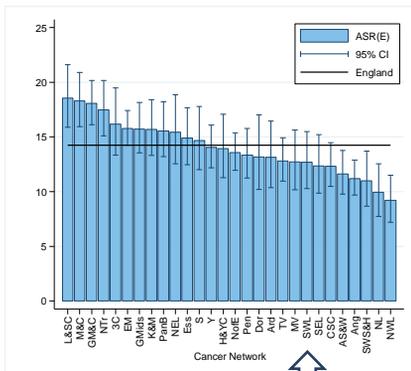


- Activity – number of new patients referred annually and number discussed at MDM
- Approaches to data recording – methodology for recording National Core Data Set
- Involvement in National and local Audit – approaches to data entry and evaluation
- Rates of trial entry

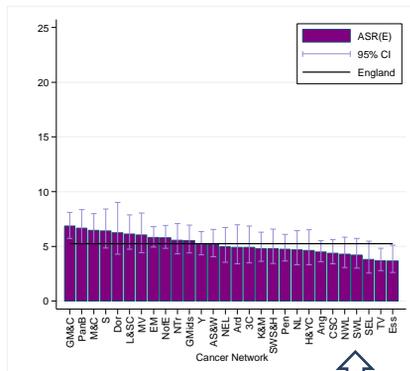
# Incidence of Oesophageal Cancer



## Males



## Females



# Overall Incidence



	Oesophageal cancer			Stomach cancer		
	(ICD10 C15)			(ICD10 C16)		
	Number of cases	Percentage	England %	Number of cases	Percentage	England %
Persons	151			141		
Males	101	66.9%	66.9%	85	60.3%	65.3%
Females	50	33.1%	33.1%	56	39.7%	34.7%
<b>Age group</b>						
0-59	32	21.2%	17.3%	28	19.9%	14.7%
60-69	32	21.2%	26.1%	20	14.2%	19.4%
70-79	43	28.5%	29.1%	56	39.7%	32.8%
80+	44	29.1%	27.5%	37	26.2%	33.2%

## Age Distribution for Oesophageal and Gastric Cancer

### London Cancer Alliance



	OESOPHAGEAL			GASTRIC		
	< 60	60-69	> 70	< 60	60-69	> 70
<b>NW</b>	29.1%	27.6%	43.3%	21.6%	23.5%	54.9%
<b>SW</b>	21.2%	21.2%	57.6%	19.9%	14.2%	65.9%
<b>SE</b>	16.8%	24.8%	58.4%	24.1%	16.3%	60.6%
<b>England</b>	<b>17.3%</b>	<b>26.1%</b>	<b>56.6%</b>	<b>14.7%</b>	<b>19.4%</b>	<b>65.9%</b>

## Routes to Diagnosis

### Gastric Cancer



	WLCN	SWCLN	SELCN	ENGLAND
Two Week Rule	7%	14%	18%	23%
GP / OP Referral	22%	25%	19%	17%
Emergency	32%	35%	41%	33%
Other OP	11%	7%	8%	8%
Inpatient Elective	13%	8%	7%	13%
Death Certificate	1%	1%	1%	1%
Unknown	14%	10%	7%	5%
No. of cases	359	411	476	18,613

## National Oesophago – Gastric Cancer Audit



The Royal College of Surgeons of England



AUGIS



## Data collected

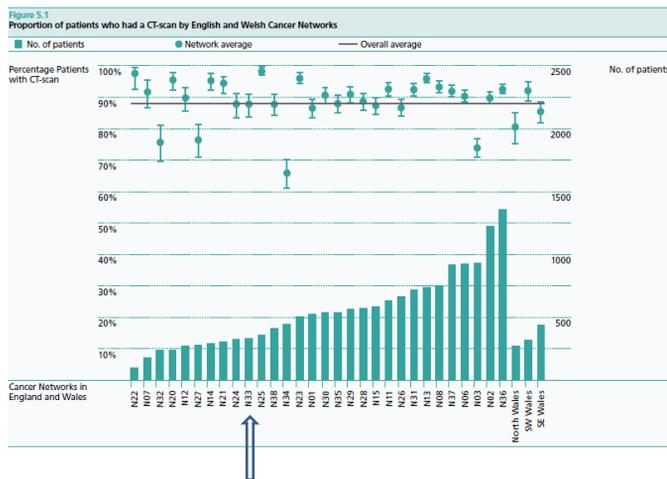
- Data on all patients:
  - Referral route
  - Date of diagnosis, staging investigations
  - Planned treatment
- Other data depends on treatment received:
  - Curative and palliative surgery
  - Endoscopic / radiological palliative therapy
  - Chemotherapy / radiotherapy
  - Post-operative pathology after curative surgery

## Centre Services



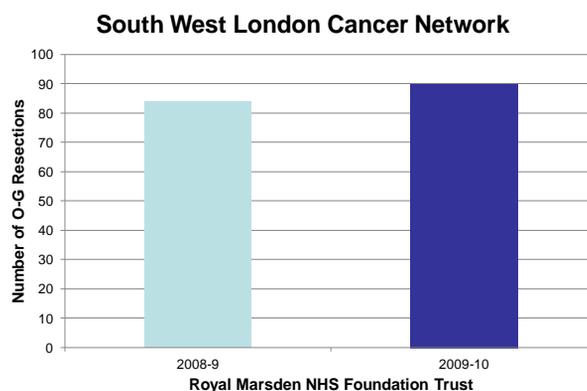
- Diagnostics / Staging – availability of PET-CT; MRI; EMR; pancreas biopsy cytology / histology
- Audit of preoperative staging compared with intra-op and postop findings: prediction operability (open and close rates; bypass rates when resection planned)
- Pathology review following surgery
- Dietician support

## Proportion of Patients who had CT-Scan





## Oesophageal and Gastric Resections



## Treatment Planning



- Surgeon volume
- Morbidity and mortality (reoperation rates, anastomotic leak rates)
- Number of lymph nodes resected
- Resection margins

## Outcomes



Oesophagectomy	Open (n = 783), %	MI (n = 314), %
30 – day mortality	3.1	3.4
Anastomotic Leak	7.8	10.6
Re-operation	10.7	12.4

Gastrectomy	Open (n = 641), %	MI (n = 96), %
30 – day mortality	4.2	4.2
Anastomotic Leak	6.3	9.4
Re-operation	8.0	7.1

## National OG Cancer Audit Morbidity and Mortality



	Audit										
	Case Ascertainment		Mortality*				Reoperation		Anastomotic leak		
	Expected cases over 21 month period	Patients with a tumour record	Number of patients	30 day mortality		90 day mortality		Crude	Adjusted	Crude	Adjusted
The Royal Marsden NHS Foundation Trust (Specialist Centre)	100 to 200	103	84	0.0%	0.0%	0.0%	0.0%	7.1%	7.0%	4.8%	4.8%
Epsom and St Helier University Hospitals NHS Trust (Local)	100 to 200	60									
Kingston Hospital NHS Trust (Local)	<100	56									
Mayday Healthcare NHS Trust (Local)	<100	74									
St George's Healthcare NHS Trust (Local)	<100	62									

## Survival



- Radical treatment: 1,2 and 5 year
- Palliative treatment: 6 and 12 mo and median
- admissions after palliative treatment (number and length of stay)
- patient reported outcomes

## Survival Oesophageal Cancer



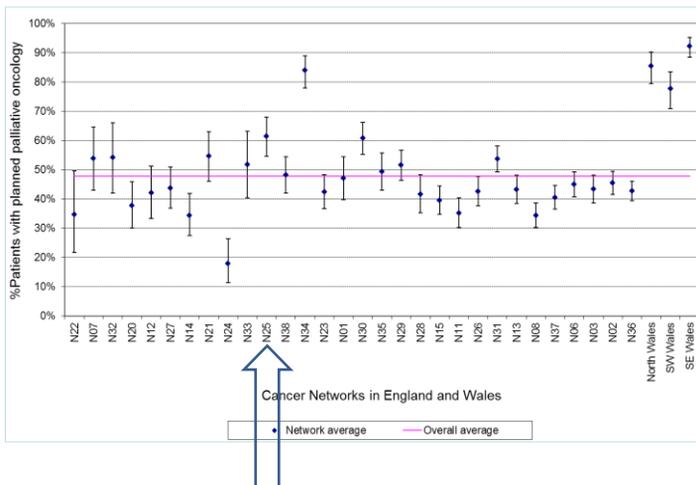
Cohort analysis of relative survival (RS)

One-, two-, and five-year relative survival (RS) (%) with 95% confidence interval by cancer network of residence and sex.

Oesophageal cancer (ICD10 C15)

Survival	One-year survival						Two-year survival						Five-year survival					
	Period of diagnosis 2004-2008						Period of diagnosis 2003-2007						Period of diagnosis 2000-2004					
	followed up until end of 2009						followed up until end of 2009						followed up until end of 2009					
	Males			Females			Males			Females			Males			Females		
RS	LCI	UCI	RS	LCI	UCI	RS	LCI	UCI	RS	LCI	UCI	RS	LCI	UCI	RS	LCI	UCI	
South West	42.0	37.0	47.0	43.6	36.4	50.9	25.2	20.6	29.8	24.4	18.0	30.8	14.0	10.3	17.7	18.0	12.2	23.9
London																		
England	43.3	42.5	44.0	37.8	36.8	38.8	23.8	23.2	24.5	20.8	19.9	21.7	12.3	11.8	12.9	12.5	11.8	13.3

## Proportion of Patients with Palliative Treatment Intent



## NCPR & NPES Data



	NCPR				Patient Experience Survey	
	Percentage Compliance	Overall National Percentage	Immediate Risk	Serious Concern	Patient given the name of the CNS in charge of their care*	Always treated with respect and dignity by staff*
The Royal Marsden NHS Foundation Trust (Specialist Centre)	95% (IV)	85% (IV)	No	No	96.7%	80.6%
Epsom and St Helier University Hospitals NHS Trust (Local)	No report published					
Kingston Hospital NHS Trust (Local)	91% (IV)	86% (IV)	No	Yes		
Mayday Healthcare NHS Trust (Local)	94% (IV)	86% (IV)	No	No		
St George's Healthcare NHS Trust (Local)	91% (IV)	86% (IV)	No	No		

**Cancer Service Profiles for Oesophago-Gastric Cancer**

has displayed are for patients for which the trust of treatment can be identified. For a full description of the data and methods, please refer to the 'Data Definitions' document. For advice on how to use the profiles and the consultation, please refer to 'Profiles Assistance'. Please direct comments/feedback to service.profiles@ncin.org.uk

Pan Birmingham CN - Heart of England NHS Foundation Trust

Resident Population of Network (2009):

England median:  (Lowest in England: , Highest in England: )

**Percentage or rate** | **Trust rate or percentage compared to England**

Level	Section	#	Indicator	No. of patients/cases or value	Cancer Network/Specialist Centre	Lower 95% confidence limit	Upper 95% confidence limit	England	Lowest	Range	Highest	Source	Period
Cancer Network	Oesophageal cancer characteristics and survival	1	persons, 2009	253	11.1	8.7	12.7	9.7	8.0	[Bar chart showing range from 8.0 to 12.7, with England mean at 9.7]		12.2	UKCIS 2009
		2	males, 2009	162	15.6	13.2	18.2	14.2	9.2	[Bar chart showing range from 9.2 to 18.2, with England mean at 14.2]		18.6	UKCIS 2009
		3	females, 2009	91	6.7	5.3	8.4	5.3	3.7	[Bar chart showing range from 3.7 to 8.4, with England mean at 5.3]		6.9	UKCIS 2009
		4	persons aged 0-59 years	53	20.9%	16.4%	26.4%	17.3%	11%	[Bar chart showing range from 11% to 26.4%, with England mean at 17.3%]		20%	UKCIS 2009
		5	persons aged 60-79 years	142	56.1%	50.0%	62.1%	55.2%	46%	[Bar chart showing range from 46% to 62.1%, with England mean at 55.2%]		64%	UKCIS 2009
		6	persons aged 80+ years	58	22.9%	18.2%	28.5%	27.9%	20%	[Bar chart showing range from 20% to 28.5%, with England mean at 27.9%]		38%	UKCIS 2009
		7	One year (5 year cohort 2005-2009)	693	39.0	35.2	42.9	43.3	38.8	[Bar chart showing range from 38.8 to 42.9, with England mean at 43.3]		62.8	UKCIS 2005-2009
		8	Oesophageal cancer relative survival	372	34.1	29.0	39.2	37.6	29.5	[Bar chart showing range from 29.5 to 39.2, with England mean at 37.6]		44.2	UKCIS 2005-2009
		9	Five year (5 year cohort 2001-2005)	625	9.3	6.7	11.9	12.3	7.5	[Bar chart showing range from 7.5 to 11.9, with England mean at 12.3]		15.0	UKCIS 2001-2005
		10	Female	420	12.1	8.5	15.7	12.6	7.8	[Bar chart showing range from 7.8 to 15.7, with England mean at 12.6]		18.0	UKCIS 2001-2005
	Stomach cancer characteristics and survival	11	persons, 2009	256	10.5	9.2	12.0	8.6	4.8	[Bar chart showing range from 4.8 to 12.0, with England mean at 8.6]		12.2	UKCIS 2009
		12	males, 2009	170	15.6	13.3	19.2	12.2	7.2	[Bar chart showing range from 7.2 to 19.2, with England mean at 12.2]		18.6	UKCIS 2009
		13	females, 2009	86	5.4	4.2	6.9	4.9	2.6	[Bar chart showing range from 2.6 to 6.9, with England mean at 4.9]		7.5	UKCIS 2009
		14	persons aged 0-59 years	44	17.2%	13.1%	22.3%	14.7%	7%	[Bar chart showing range from 7% to 22.3%, with England mean at 14.7%]		24%	UKCIS 2009
		15	persons aged 60-79 years	138	53.9%	47.8%	59.9%	52.2%	40%	[Bar chart showing range from 40% to 59.9%, with England mean at 52.2%]		60%	UKCIS 2009
		16	persons aged 80+ years	74	28.9%	23.7%	34.7%	33.2%	26%	[Bar chart showing range from 26% to 34.7%, with England mean at 33.2%]		41%	UKCIS 2009
		17	One year (5 year cohort 2005-2009)	795	41.5	37.6	45.1	43.6	37.1	[Bar chart showing range from 37.1 to 45.1, with England mean at 43.6]		65.6	UKCIS 2005-2009
		18	Stomach cancer relative survival	370	35.9	30.7	41.1	39.5	34.3	[Bar chart showing range from 34.3 to 41.1, with England mean at 39.5]		53.7	UKCIS 2005-2009
		19	Five year (5 year cohort 2001-2005)	922	15.4	12.6	18.1	16.3	10.5	[Bar chart showing range from 10.5 to 18.1, with England mean at 16.3]		24.2	UKCIS 2001-2005
		20	Female	420	20.1	15.5	24.7	17.3	10.5	[Bar chart showing range from 10.5 to 24.7, with England mean at 17.3]		25.3	UKCIS 2001-2005
Trust	Oesophago-Gastric Practice	21	Patients who had a CT scan	580	92.8%	90.5%	94.6%	89.3%	88%	[Bar chart showing range from 88% to 94.6%, with England mean at 89.3%]		89%	NOGCA 2007-2009
		22	Patients with EUS investigation	126	78.5%	71.6%	84.1%	61.4%	28%	[Bar chart showing range from 28% to 84.1%, with England mean at 61.4%]		87%	NOGCA 2007-2009
		23	Number of O-G resections	74				3524	0	[Bar chart showing range from 0 to 3524, with England mean at 3524]		114	NatCarSAT 2009-10
		24	Patients with palliative treatment intent	126	35.2%	30.4%	40.3%	45.2%	18%	[Bar chart showing range from 18% to 40.3%, with England mean at 45.2%]		84%	NOGCA 2007-2009
		25	NCPR Network Board compliance	100%				93.0%		[Bar chart showing range from 93.0% to 100%, with England mean at 93.0%]			NCPR 2010-2011
		26	NCPR NSIG compliance	100%				81.0%		[Bar chart showing range from 81.0% to 100%, with England mean at 81.0%]			NCPR 2010-2011
		27	Expected cases over 21 month period	> 200						[Bar chart showing range from 0 to 200, with England mean at 200]			NOGCA 2007-2009
		28	Patients with a tumour record	262						[Bar chart showing range from 0 to 262, with England mean at 262]			NOGCA 2007-2009
		29	Low case ascertainment	No						[Bar chart showing range from 0 to 262, with England mean at 262]			NOGCA 2007-2009
		30	30 day mortality (adjusted)	53	2.5%					[Bar chart showing range from 0 to 2.5%, with England mean at 2.5%]			NOGCA 2007-2009
National Cancer Review	Patient Experience	31	30 day mortality (adjusted)	53	2.2%					[Bar chart showing range from 0 to 2.2%, with England mean at 2.2%]			NOGCA 2007-2009
		32	Reoperation (adjusted)	53	18.1%					[Bar chart showing range from 0 to 18.1%, with England mean at 18.1%]			NOGCA 2007-2009
		33	Anastomotic leak (adjusted)	53	18.9%					[Bar chart showing range from 0 to 18.9%, with England mean at 18.9%]			NOGCA 2007-2009
		34	Compliance with NCPR		89% (IV SC)			85% (IV)		[Bar chart showing range from 85% to 89%, with England mean at 85%]			NCPR 2010-2011
		35	NCPR: are there immediate concerns?	No						[Bar chart showing range from 0 to 100%, with England mean at 100%]			NCPR 2010-2011
		36	NCPR: are there serious concerns?	No						[Bar chart showing range from 0 to 100%, with England mean at 100%]			NCPR 2010-2011
		37	Patient given the name of the CNS in charge of their care	43	95.2%					[Bar chart showing range from 95.2% to 100%, with England mean at 100%]			CPES 2010-2011
		38	Patients reporting always being treated with respect and dignity	43	80.6%					[Bar chart showing range from 80.6% to 100%, with England mean at 100%]			CPES 2010-2011

# Conclusions

national cancer intelligence network

- Wealth of data
- NCPR
- Commissioning Specialist Services
- Improve Outcomes