On-line portal for the validation of BCCOM data: results from Year 1

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BCCOM Audit: aims

- Set up national audit of symptomatic breast cancers
- Start from routinely collected national data: cancer registries/ HES …
- Gives participants the opportunity to validate - hence own - the data
- Feed data back to the cancer registries
- Encourage contacts between breast units and cancer registries

BCCOM Phase 1 (2004-2010)

- Breast surgeons sent **encrypted files** containing their patients' details, as recorded by cancer registries
- File format: **spreadsheet**, one row per patient, 53 columns
- Surgeons asked to validate data and return signed off file to the WMCIU
- Validated data returned to cancer registries in a flat file
- Annual UK-wide report produced; regional/ breast unit level reports produced on ad-hoc basis

Weaknesses

- ✓ Risk of breaches of **data protection and confidentiality**
- ✓ Difficulties encountered by participants when opening encrypted files
- ✓ Information not in a user-friendly format
- ✓ Data returned by surgeons difficult for cancer registries to process
- ✓ No automatic, personalised feedback to participants

BCCOM Phase 2 (2011)

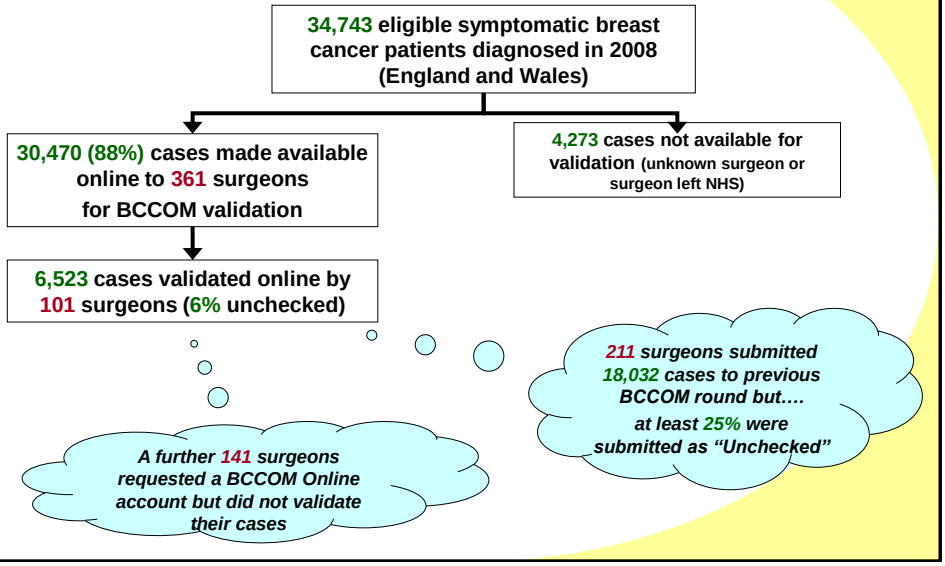
SPECIFICATIONS

- **Online** portal: Surgeons to log in, access, amend and sign off their data online
- Format: **one patient by computer screen**
- Comprehensive audit of data changes
- Strong **data security**
- Generate automatically:
  - ➢ **Certificates** upon audit completion, allowing participants to document their participation in audit
  - ➢ **Surgeon level reports**

Launch of BCCOM Online

- **Online portal** developed as an extension of the **ENCORE** (*English National Cancer Online Registration Environment*) national cancer registration platform
- **Launched** in June 2011 – available for England and Wales
- **Access:** To minimise the risk of disclosure, surgeons can access only their assigned patients
- **Functionalities**
  - Participants can **reassign** a patient to another surgeon or **claim** a patient not on their list
  - Messages on **missing/ unknown patients** automatically sent to BCCOM administrator who can investigate and re-assign patients if appropriate
  - Cases listed in order of **priority**: top of the list are cases for which the information provided by the cancer registry seems to either omit important data or contain unexpected data.
  - Participants can choose to only validate these cases, and submit the other cases as '**unchecked**'

Participation



Updates Made by Participants (1)

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Changes to initial cohort

- 62 cases added by participants
- 282 cases identified as screen-detected by participants
- 109 cases excluded for other reasons:
  - disagreement on date of diagnosis
  - recurrence
  - patient unknown at assigned breast unit

Updates Made by Participants (2)

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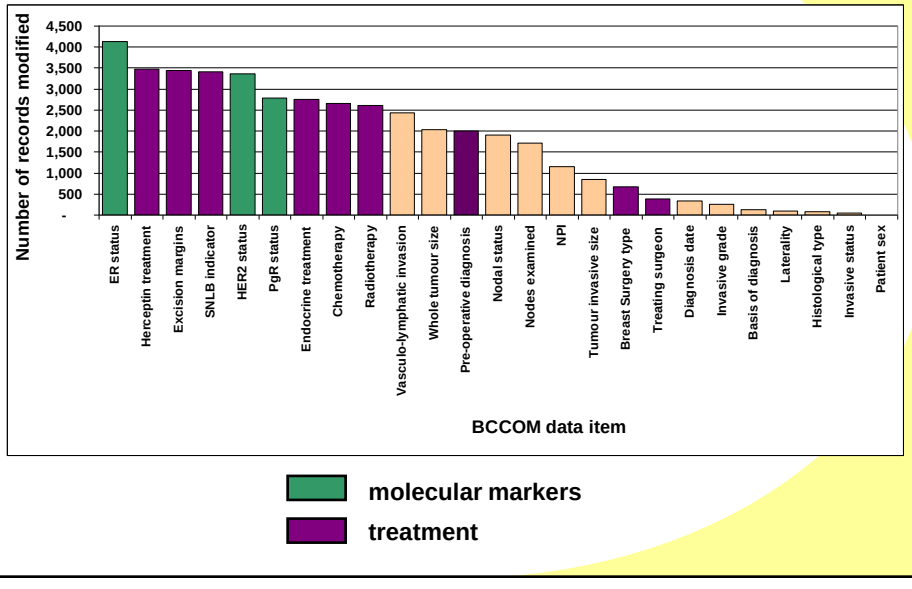


Updates Made by Participants (3)

Chemotherapy Treatment		Participants update		
		Unknown	Yes	No
Cancer Registry/ HES data	Unknown	-	271	2,305
	Yes	2	-	56
	Planned	-	16	2

Sentinel Lymph Node Procedure		Participants update		
		Unknown	Yes	No
Cancer Registry/ HES data	Unknown	-	511	2,852
	Yes	3	-	41

Feedback from Participants

- **106 surgeons took part in a survey asking for feedback on BCCOM Online**
- **Main suggestions from survey participants**
  - More guidance
  - More advanced notice / reminders
  - Alternative methods to provide passwords
  - Provide feature such as uploading MDT data
- **Changes introduced for next BCCOM round**
  - **Original cancer registry data supplemented by other national dataset (**England**:** Hospital Episode Statistics, Radiotherapy, and National Cancer Waiting Times Monitoring Dataset; Wales: Canisc)
  - **Timeliness**: Audit patients diagnosed in **2010** (i.e. omit 2009)
  - Breast units with good quality in-house data invited to upload
  - **Online Portal**: Improvements based on feedback received

Surgeon Level Reports

- **Granularity -** treating-surgeon level, whether surgeon has taken part in BCCOM or not
- **Benchmarking -** each surgeon's results compared with National results (validated or not)
- **Content - measures based on:**
  - CLE: Breast Clinical Lines of Enquiry Briefing Paper for National Cancer Peer Review 2011-2012
  - NICE: National Institute For Health and Clinical Excellence - Quality standard for breast cancer (August 2011)
  - NHSBSP audit of screen-detected breast cancers 1 April 2009 to 31 March 2010
  - BCCOM: list of outcome measures/ items flagged as parameters to check in priority/ items specific to audit process
- **Access to report -** online, secure site for surgeons to access their individual report

Figure 5: Proportion of invasive breast cancers tested for HER2 status

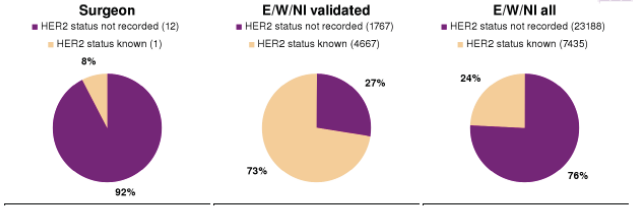
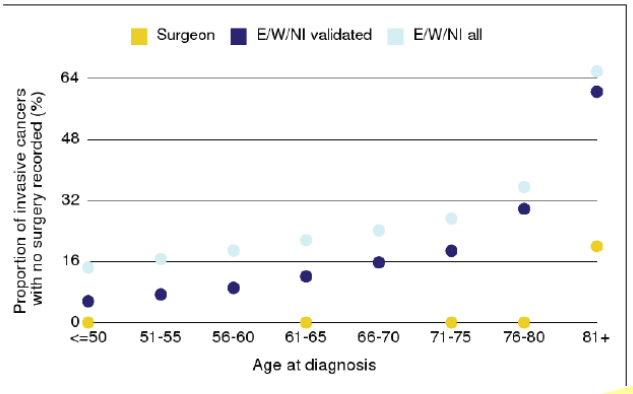


Figure 6: Variation with age in the number of invasive breast cancers with no breast surgery recorded



Surgeon Level Reports

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Table 10: Use of sentinel lymph node biopsy (SNLB) in management of invasive symptomatic breast cancers diagnosed in 2008

Sentinel Lymph Node Biopsy?	Surgeon		E/W/NI validated		E/W/NI all	
	Nº cases	%	Nº cases	%	Nº cases	%
Yes SNLB	1	7.7%	2,289	35.6%	8,152	26.6%
No SNLB	1	7.7%	3,098	48.2%	3,189	10.4%
Unknown	11	84.6%	1,047	16.3%	19,282	63.0%
Total	**13**	**100.0%**	**6,434**	**100.0%**	**30,623**	**100.0%**

Table 11: Variation with age in radiotherapy (RT) for invasive symptomatic breast cancers treated with breast conserving surgery

Age at diagnosis	Surgeon			E/W/NI validated			E/W/NI all		
	Nº with BCS	BCS, known to have RT		Nº with BCS	BCS, known to have RT		Nº with BCS	BCS, known to have RT	
		Number	%		Number	%		Number	%
<=50	1	-	0.0%	816	745	91.3%	3,728	2,244	60.2%
51-55	-	-	na	241	219	90.9%	998	594	59.5%
56-60	-	-	na	282	264	93.6%	1,049	681	64.9%
61-65	2	-	0.0%	239	221	92.5%	1,052	671	63.8%
66-70	-	-	na	181	155	85.6%	760	501	65.9%
71-75	-	-	na	188	157	83.5%	911	607	66.6%
76-80	-	-	na	203	158	77.8%	889	527	59.3%
81+	-	-	na	166	91	54.8%	704	304	43.2%
Total	**3**	**-**	**0.0%**	**2,316**	**2,010**	**86.8%**	**10,091**	**6,129**	**60.7%**

Surgeon Level Reports

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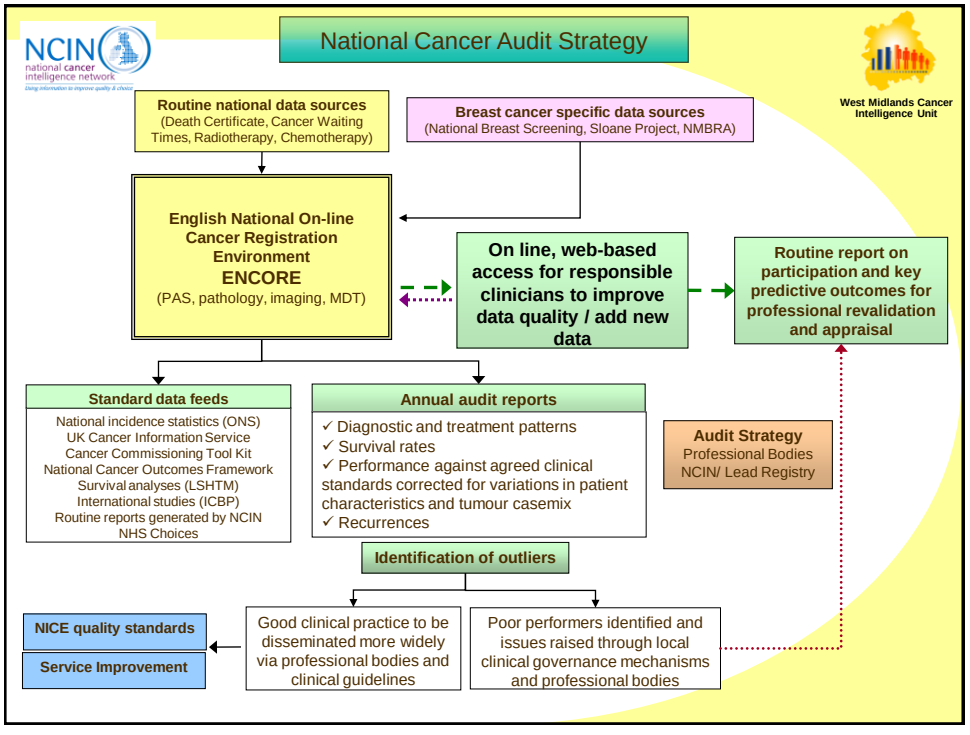
Conclusions

- **Advantages**
  - No need for new data collection route
  - Returns data to surgeons for validation: **clinical ownership**
  - Prioritises cases clinicians should check
  - Encourages communication between clinicians and cancer registries
  - Generates surgeon level/hospital level/cancer network level reports for local audits: **completion of audit cycle**
- **Issues**
  - Difficulties encountered by participants to create/use @nhs.net email account
  - 43% of non-participants: “support from a data manager would encourage me to take part in future”
  - Surgeon level vs MDT level data


National Cancer Audit Strategy
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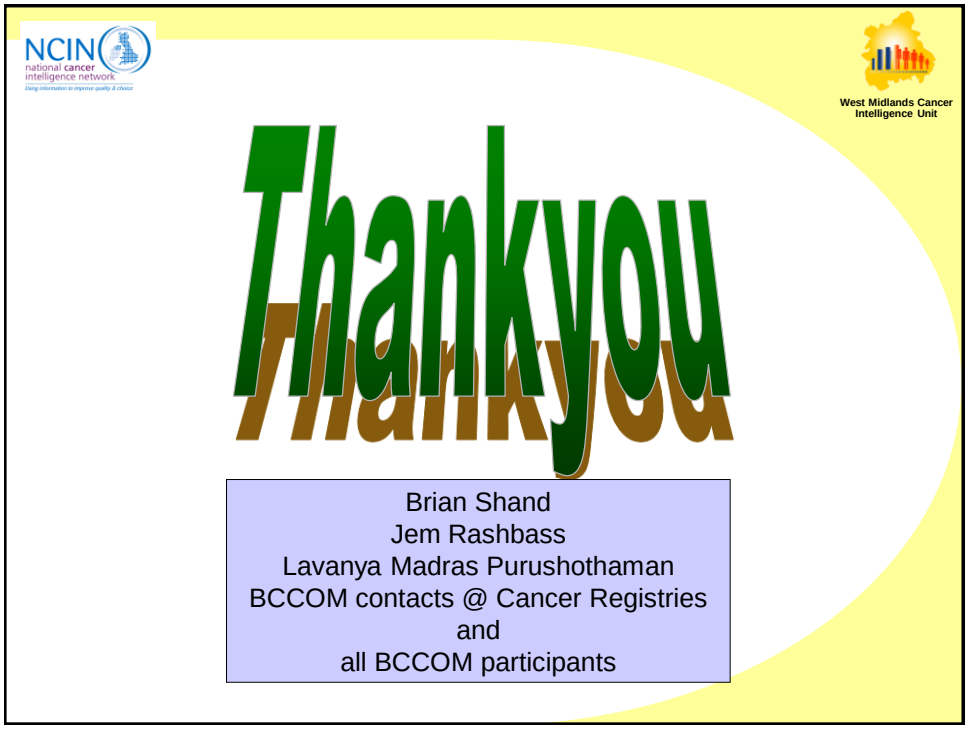
Routine national data sources
(Death Certificate, Cancer Waiting Times, Radiotherapy, Chemotherapy)
Breast cancer specific data sources
(National Breast Screening, Sloane Project, NMBRA)
English National On-line Cancer Registration Environment
ENCORE
(PAS, pathology, imaging, MDT)
On line, web-based access for responsible clinicians to improve data quality / add new data
Routine report on participation and key predictive outcomes for professional revalidation and appraisal
Standard data feeds
National incidence statistics (ONS)
UK Cancer Information Service
Cancer Commissioning Tool Kit
National Cancer Outcomes Framework
Survival analyses (LSHTM)
International studies (ICBP)
Routine reports generated by NCIN
NHS Choices
Annual audit reports
✓ Diagnostic and treatment patterns
✓ Survival rates
✓ Performance against agreed clinical standards corrected for variations in patient characteristics and tumour casemix
✓ Recurrences
Audit Strategy
Professional Bodies
NCIN/ Lead Registry
Identification of outliers
NICE quality standards
Service Improvement
Good clinical practice to be disseminated more widely via professional bodies and clinical guidelines
Poor performers identified and issues raised through local clinical governance mechanisms and professional bodies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Thankyou
Brian Shand
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Lavanya Madras Purushothaman
BCCOM contacts @ Cancer Registries
and
all BCCOM participants