Collecting data and stories to demonstrate the impact of a clinical information service: challenges and successes

Anna Brown, CEBIS Specialist
13th July 2018
What is CEBIS?

- Clinical Evidence Based Information Service
- Information professionals
- Referrals for patient care, audit, guidelines, research, corporate …
- Scoping searches / evidence summaries
- Evidence in Practice Groups
- Promotes evidence-based practice, quality and patient safety, CPD, research, conferences….
• Collecting evidence of impact over the years
• How we’ve used this information to demonstrate value
• Lessons learnt & thoughts for the future
Collecting evidence of impact over the years

• 2010-2013
  – Spreadsheets, e.g. usage by department / purpose
  – Personal communications, “fishing” emails and phone calls
  – Reactive

<table>
<thead>
<tr>
<th>Query</th>
<th>Potential outcomes</th>
</tr>
</thead>
</table>
| Pain management for patients with rib fracture | • Evidence-based algorithm developed and distributed to relevant wards.  
  • Nurses have observed that management of pain for these patients has improved. |
2013-2014: CEBIS system outcomes form

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Referral ID</th>
<th>1270</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Avoided unnecessary</strong></td>
<td></td>
<td></td>
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<tr>
<td>- Diagnostic Test</td>
<td></td>
<td></td>
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<tr>
<td>- Hospital length of stay</td>
<td></td>
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<tr>
<td>- OutPatient appointment</td>
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<td>- Referral</td>
<td></td>
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<td>- Use of resources</td>
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<tr>
<td>- Medications</td>
<td></td>
<td></td>
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<tr>
<td>- Staff time</td>
<td></td>
<td></td>
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<tr>
<td>- Waiting time to treatment</td>
<td></td>
<td></td>
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<tr>
<td><strong>Changed</strong></td>
<td></td>
<td></td>
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<tr>
<td>- Diagnostic test</td>
<td></td>
<td></td>
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<tr>
<td>- Patient Information or advice</td>
<td></td>
<td>showed patient the evidence, she felt well informed and decided not to go ahead with surgery</td>
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<tr>
<td>- Procedure</td>
<td></td>
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<tr>
<td>- Prognosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Therapy</td>
<td></td>
<td></td>
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<tr>
<td><strong>Confirmed lack of evidence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Confirmed lack of evidence</td>
<td></td>
<td></td>
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<tr>
<td><strong>Confirmed meeting best practice</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Confirmed meeting best practice</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Very few responses
- No reporting functionality

<table>
<thead>
<tr>
<th>Corporate</th>
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<tbody>
<tr>
<td>Audit</td>
<td></td>
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<tr>
<td>Care Pathway</td>
<td></td>
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<tr>
<td>Cost saving</td>
<td></td>
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<tr>
<td>Guideline development</td>
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<tr>
<td>Knowledgebase</td>
<td></td>
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<tr>
<td>Legal Investigation</td>
<td></td>
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<tr>
<td>Research</td>
<td></td>
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<tr>
<td>Service Delivery</td>
<td></td>
</tr>
<tr>
<td>Teaching</td>
<td></td>
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<table>
<thead>
<tr>
<th>Prevention</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Complaint</td>
<td></td>
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<tr>
<td>Morbidity</td>
<td></td>
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<tr>
<td>Mortality</td>
<td></td>
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<tr>
<td>Risk</td>
<td></td>
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</tbody>
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<thead>
<tr>
<th>Trust Profile</th>
<th></th>
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<tbody>
<tr>
<td>Conference Paper</td>
<td></td>
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<tr>
<td>Conference Post</td>
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<td>Publication</td>
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2014-2017: survey number 1 ‘CEBIS Outcomes’

- SurveyMonkey
- Based on …?
- Developed process for identifying completed referrals, sending out survey and downloading results
- Tied to individual referrals
- 7 questions; different types, e.g:
  - Q3. How did CEBIS change patient care as a result of the information given? [tick boxes, ‘please elaborate’]
  - Q6. Please rate from 1-10 the use and quality of the CEBIS information
Survey 1 – advantages and disadvantages

• Response rate: 231/896  **25.8%**
• Individual CEBIS Specialists could review responses to their own work
• Results underused
• 1-10 scores not really telling us anything about outcomes / impact / value

In August 2014 CEBIS launched an online survey to capture service outcomes. Staff rated their overall experience of the service as 9.5 out of 10.

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CEBIS @UHCW_CEBIS · 12 Feb 2016
over 60% survey respondents gave us a perfect 10 #FridayFeeling
2017-2018: survey 2 - ‘CEBiS impact survey’

  – Survey & interviews
  – Rigorous, systematic collection of impact data
  – Tied to organisational objectives
  – Demonstrated impact in multiple areas of importance to NHS

• HEE Knowledge for Healthcare:
  – Impact tools (questionnaire & interview templates)
  – Case studies database & templates
CEBIS Impact Survey - development

• Q1: *CEBIS referral number
• Q2-6: mirror Brettle et al, Q3-6
  – 30 potential impacts arranged under 5 headings
  – Option to tick ‘has contributed’ or ‘may contribute in future’ for each impact
  – Can skip individual impacts or whole categories
  – Tweaked some terminology to reflect UHCW objectives / values
  – Rearranged some impacts / headings
  – Added ‘time saving’ under ‘efficiency’
2. Did/will the information obtained from Library & Knowledge Services on this occasion contribute to **Decision making and evidence-based practice**? Please tick all that apply. If this section is not applicable please go to question 3.

*Did / will the info contribute to:*

<table>
<thead>
<tr>
<th>Has contributed</th>
<th>May contribute in future</th>
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</thead>
<tbody>
<tr>
<td>Diagnosis</td>
<td></td>
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<tr>
<td>Choice of assessment / test</td>
<td></td>
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<tr>
<td>Choice of treatment / intervention</td>
<td></td>
</tr>
<tr>
<td>Advice to patient / carer</td>
<td></td>
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<tr>
<td>Revision of care pathway / guideline / protocol / policy</td>
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</tbody>
</table>
• Q7: …any other outcomes or improvements? (13 responses)
• Q8: *How would you sum up the impact …
• Q9: *Consent to use of information provided:
  – Within UHCW NHS Trust
  – Outside of UHCW NHS Trust
  – I do not consent to use of my responses
• Q10: Any other comments? (14 responses)
• Questions grouped so survey 4 pages long
### CEBIS Impact Survey – Results
April 2017–June 2018

- **Response rate: 73/227 32.2%**

<table>
<thead>
<tr>
<th>Did/will the information obtained from Library &amp; Knowledge Services on this occasion contribute to…</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>decision making and evidence-based practice?</td>
<td>86.3%</td>
</tr>
<tr>
<td>patient experience, patient-centred care, or health care outcomes?</td>
<td>82.2%</td>
</tr>
<tr>
<td>quality of care, innovation and service development?</td>
<td>90.4%</td>
</tr>
<tr>
<td>research, learning or continuing professional development?</td>
<td>90.4%</td>
</tr>
<tr>
<td>efficiency, financial management, safety or risk management?</td>
<td>82.2%</td>
</tr>
</tbody>
</table>
Has contributed:

**Top 5 (44-75%):**
- Updating knowledge and skills
- Education or training
- Time saving (yours or your team's)
- Providing value for money / cost-effective service
- Improved quality of care

**Bottom 5 (7-15%):**
- Business development
- Increased patient involvement / shared decision-making
- Improved patient access to or choice of treatment
- Improved patient access to information
- Reduced length of stay

May contribute in future:

**Top 5 (43-48%):**
- Reduced length of stay
- Improved patient access to or choice of treatment
- Improved patient experience
- Improved patient access to information
- Improved patient treatment outcomes

**Bottom 5 (11-23%):**
- Compliance with requirements of regulatory / professional bodies, incl. revalidation
- Providing value for money / cost-effective service
- Updating knowledge and skills
- Time saving
- Education or training
Q8: How would you sum up the impact of the service provided on this occasion?

“Information has provided evidence comparing two treatment options. Will disseminate to other staff safe in the knowledge that current evidence dictates it to be true.”

“a more detailed search was done, better than I could have managed with the time I have available on the ward. thank you for your help.”

“I conducted a service evaluation of the current service and we have set up a better novel patient service”

“It is clear that you have put a great deal of time and effort into this and by highlighting the relevant areas for me; it has made it much easier for me to dissect the information.”

“Reducing number of ECHO requested in patients undergoing HPB surgery”

“very helpful information- helped us reassure a patient that they didn't need to follow extreme restrictions whilst receiving cancer treatment”
How impact / outcomes data has been used to demonstrate value

- Annual reports / Quality Account
- National and international conferences (clinical and LIS)
- Argue for staff recruitment
- Internal marketing to specialties, departments, new trainees
- Twitter
- Knowledge for Healthcare
  - Request for impact examples for HEE stakeholder briefings Summer 2016
  - Case studies – 4 published in database
The Library supports... Patient care!

The information provided by CEBIS has supported a reduction in the need for repeat hospital visits for further laser or other treatments.

Immediate Impact!
The information provided by CEBIS has supported:
- A reduction in the need for repeat hospital visits by patients for further laser or other treatments.
- Consistency of approach from clinicians, no mixed messages for patients.
- Creation of a patient information leaflet.
- Consolidation of verbal information given at patient consultation, allaying patients’ fears and anxieties.

Referral
The embedded CEBIS Specialist was asked to look into optimal urgent treatment of tears in the retina (at the back of the eye) using laser.
A search of multiple databases was undertaken and the best available evidence was presented to the Vitreoretinal Team at UHCW.

What did the evidence suggest?
Research suggested that Ophthalmologists need to be trained in the use of an indirect laser machine for this procedure, rather than the commonly used slit-lamp which may be less effective.

Future Impact?
Probable financial saving relating to avoidance of retinal detachments (UHCW has a low rate compared to other centres) and re-treatment of breaks.

Many thanks to interviewee Dr Amritpal Chagger, Senior Optometrist.
Library and Knowledge Services online? www.tinyurl.com/uhcwlib

Twitter: @UHCWLibrary @UHCW_CEBIS / libraryw@uhcw.nhs.uk / cebis@uhcw.nhs.uk / 02476 968829 (ext:28829)
Lessons learnt and future considerations

• Need rigorous processes
  – Sending out survey – build in follow-up email to improve response rate
  – Reviewing and using responses – need to establish regular review, identification of case studies, use of data
  – Time consuming, requires assistance and buy-in from colleagues

• More, better ways to use the data?

• Unstructured personal communications remain a useful source of impact information:
  – Know your customers
  – Create a formal pool of quick examples and quotes?
• Use of enquiry management system (RefTracker)?
  – Streamline process
  – Store responses alongside other referral information
  – Use of star ratings

• Are we asking too much of our customers?
  – Does it need to be a continuous process?
  – “This form is too long with due apologies”

• Survey does not identify areas for improvement:
  – Bias: are respondents mostly CEBIS fans?
  – Not anonymous

• What do we do about negative feedback?
  – “It was a very poor research. I was not happy at all. The research made was very superficial and useless. I was very disappointed.”
Mixed methods approach?

- Instant feedback
- Regular impact survey
- Regular improvement survey
- Case studies
- Pool of comments & examples
Any Questions?

@UHCW_cebis

cebis@uhcw.nhs.uk