

Collaborating to Improve Healthcare Outcomes: the introduction of a Clinical Informationist service to Ireland.

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Beaumont Hospital









Beaumont Hospital

- Main Teaching Hospital for the Royal College of Surgeons in Ireland
- 791 beds
 - Patient throughput (2008)
 - 21,775 Inpatient discharges
 - 40,801 Day cases



Funding for the CI Project was provided by CICT on a competitive basis, taking account of the quality and relevance of the research proposal. Funding also from Beaumont Hospital





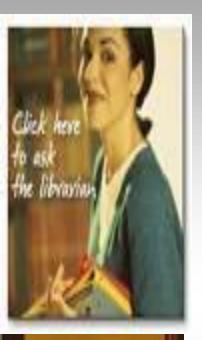
Hospitals and Evidence Based Practice

- Hospitals are knowledge intensive organizations
- Evidence Based Medicine
- Clinical questions should be answered on basis of research evidence
- Clinical staff do not take time to review evidence
 - Time consuming
 - Vast amounts of information (40,000 biomedical journals)
 - Databases too complex
 - Retrieval skills are not good









ACCESS TO MEDICAL KNOWLEDGE

AND WE PUBLIC 2000

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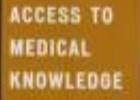
Clinical Librarian / Informationist Concept

- Developed in the 1970s (Dr. Gertrude Lamb)
- Clinical librarians became integrated members of healthcare teams
- To provide access to the knowledge base of medicine at the point of care
- Davidoff & Florence 2002 Annals of Internal Medicine Editorial









AND THE PARTY 2000

Clinical Informationist Role

- Helps to bring research from bench to bedside quickly and efficiently.
- Facilitate medical problem-solving and clinical decision making
- Contribute to CME, EBM and research process
- Bring expert knowledge of electronic resources and the Medical Literature to the Clinical Team





Overview of Clinical Informationist Project

- Introduce the concept of Clinical Informationist to Ireland
- Increase effectiveness and value for money of Clinical Teams by providing them with evidence based clinical information
- Help decrease hospital costs
- To evaluate the potential care and economic benefits of extending the Clinical Informationist model to the rest of the Irish healthcare service.





Critical Success Factors

- Appointment of Clinical Informationist
- Acceptance of Clinical Informationist by clinical staff
- Proactive dialogue, including meetings and follow up requests to ensure maximum uptake of service and response rate
- Frequency of requests and use of the service by Team members
- Willingness of Team members to provide feedback
- Electronic access to the knowledge base of healthcare
- Negotiation of Budget sources available to the research project
- Identification of appropriate Research Instruments





Methods of Evaluation

Study is focused primarily on Cystic Fibrosis and secondly on Endocrinology

- 1. <u>Survey</u> of the information seeking habits of Clinical Teams before the Clinical Informationist joins the Team
- 2. <u>Online self-assessment</u> of the impact of information provided by the Clinical Informationist <u>on a range of outcomes</u> associated with <u>Clinical decision making</u>, <u>Clinical research</u>, <u>Education CME</u>, <u>CPD</u> and the <u>Avoidance of adverse effects</u>
- 3. <u>Structured interviews</u> with members of the Clinical Teams in the Department of Medicine at Beaumont Hospital after six months and at the end of the year





Clinical Informationist Role

- Based in the Department of Medicine in Beaumont Hospital and works with Cystic Fibrosis and Endocrinology services.
- Duties:
 - conducting literature searches for clinical and research staff
 - providing prompt and relevant evidence-based information
 - attending multidisciplinary team meetings, ward rounds, clinics and journal clubs etc.
 - providing information skills training





Activity from June-December 2008

Cystic Fibrosis service

- 113 questions were generated (clinical/research/CME/CPD)
- Most questions were complex and required comprehensive literature searching e.g.
 - > What is the incidence of Asperger's Syndrome occurring with Immunodeficiency? Have these co-morbidities ever been documented in the presence of Cystic Fibrosis?
 - > What guidelines are in place regarding the sequence that Cystic Fibrosis medicine should be taken in?





Activity from June-December 2008

Further examples of clinical questions:

- Can you find me models for adult Cystic Fibrosis Nursing Care Pathways?
- > What is the risk of Thrombosis with Megace (aka Megestrol) in a young female Cystic Fibrosis patient?

Queries have been diverse with requests for: full text articles / survey instruments / nursing care plans / protocols / guidelines / journal impact factors etc.





Uptake of service within Cystic Fibrosis Team

- All Cystic Fibrosis multidisciplinary team members (i.e.
 Consultants, Non Consultant Hospital Doctors [NCHDs],
 Researchers, Nurses, Physiotherapist, Psychologist, Social
 Worker and Dietician and Students) have availed of the service
 and many use it regularly
- Consultants and Registrars (both Clinical and Research) use the service most often







Collaboration with Clinical Team

- Forged excellent relationships with the Cystic Fibrosis Team members
- Attended the Ninth National Cystic Fibrosis Meeting in Killarney in January 2009 with the Team members
- Regular contact with Clinical Teams is vital to maintaining these relationships





Endocrinology Service

- Joined Endocrinology in March 2009
- Endocrinology has a very diverse patient load, so joining this Team presented a great learning opportunity
- Many complex queries presented, which require detailed literature searching
- The uptake within this team has been predominantly by Consultants and Registrars and Senior House Officers









Endocrinology Service

Examples of Questions generated by the Endocrinology Team:

- What is the role of GLP-1 injections in the treatment of diabetes in patients with Huntington's Chorea?
- A male patient presents with gustatory sweating after eating (only). The patient doesn't have diabetes and is in 60s/70s age group. This condition is usually related to autonomic neuropathy but the patient also had heart surgery which might be a causal factor, as might a tumour. What conditions other than autonomic neuropathy have been known to cause gustatory sweating?
- Recent and significant clinical trials on Hypertension and Diabetes (there are thousands!)





Ongoing evaluation

- The service is evaluated largely using online surveys (Surveymonkey)
- These seek to determine the relevance and timeliness of the information provided in addition to the impact of the information upon clinical decision-making and research
- Completion rates of evaluation forms has been high, as they are short and convenient to complete





Qualitative feedback on the service

- "Information provided was truly time saving"
- "Information provided will have an impact on more than 100 patients per year"
- "Information provided will help us develop protocols"
- "Very important articles will guide future clinical practice"
- "Information provided will have a huge impact on the advice given to all Cystic Fibrosis patients in the future"





Qualitative feedback on the service

- "Excellent search. I found the result surprising. i.e. not what I expected"
- "Excellent thorough search on a very obscure rare topic"
- "Excellent information to a specific question. Information search involved telephoning individuals with the knowledge to discuss specifics. Am grateful for the time and innovation taken to answer this question."
- "Brilliant yet again in an extremely efficient fashion"





Outcomes from Research involvement

S NCBI	A service of the <u>U.S. National Library of Medicine</u> and the <u>National Institutes of Health</u>	My NCBI E Welcome mauraflynn. <u>[Sign Out</u>
All Databases	PubMed Nucleotide Protein Genome Structure OMIM PMC Journals Books	
Search PubMed	for Flynn MG[author] AND obsessive compulsive Go Clear Advanced Search Save Search	
About Entrez	Limits Preview/Index History Clipboard Details	
Text Version	Display Citation • Show 20 • Sort By • Send to •	
Entrez PubMed	All: 1 Review: 0 😿	
Overview Help FAQ Tutorials New/Noteworthy E-Utilities	□ 1: <u>Pediatr Pulmonol.</u> 2009 Mar;44(3):300-1. [FUL TEXT AVAILABLE ONLINE Genuer Genuer Obsessive-compulsive disorder: good for cystic fibrosis (CF)?	Related Articles, Link:
PubMed Services Journals Database	<u>Chotirmall SH, Flynn MG, Kernekamp C, McElvaney NG</u> .	
MeSH Database Single Citation Matcher	Publication Types: • <u>Letter</u>	
Batch Citation Matcher Clinical Queries	PMID: 19206183 [PubMed - in process]	
Special Queries LinkOut My NCBI	Display Citation • Show 20 • Sort By • Send to •	







Health Information: a national Health Information strategy (2004)

"high quality care requires the availability and use of evidence tailored to the needs of health professionals at the point of decision making"





Thank you

- We would like to extend our thanks to Professor McElvaney and the Cystic Fibrosis team and Dr. Diarmuid Smith and the Endocrinology team for their enthusiasm and warm welcome
- We would also like to express our sincere gratitude to Kate Kelly and the staff of the RCSI libraries for their continued support
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