Retrospective observational study of the unique yield from CINAHL for clinical questions posed in NICE guidelines

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NATIONAL COLLABORATING CENTRE FOR MENTAL HEALTH

NCGC National Clinical Guideline Centre

NHS National Institute for Health and Clinical Excellence

The NCGC is a governance collaboration, hosted by the RCP and funded by NICE

Royal College of Physicians

The Royal College of Surgeons of England

RCGP Royal College of General Practitioners

Royal College of Nursing

NHS National Institute for Health and Clinical Excellence

Introduction

Developing NICE clinical guidelines

- National Clinical Guideline Centre
- National Collaborating Centre for Cancer
- National Collaborating Centre for Mental Health
- National Collaborating Centre for Women's and Children's Health
- Short Clinical Guidelines team (SCG team)

Introduction

NICE guideline development manual

- Aimed primarily at staff at the National Collaborating Centres (NCCs) that are commissioned by NICE to develop NICE clinical guidelines
- Explains how NICE develops clinical guidelines
- Provides advice on the technical aspects of clinical guideline development and the methods used

Introduction

Core databases searched

- Cochrane Database of Systematic Reviews (CDSR)
- Database of Abstracts of Reviews of Effects (DARE)
- Cochrane Central Register of Controlled Trials (CENTRAL)
- Health Technology Assessment (HTA) database
- MEDLINE/MEDLINE In-Process
- EMBASE
- CINAHL (Cumulative Index to Nursing and Allied Health Literature)
- PsycINFO [NCCMH ONLY]

Introduction

CINAHL: the transition to EBSCOhost

Problems posed to the Centres:

- ❑ Inability to search CINAHL via platforms widely used by the Centres
- ❑ Time taken to translate search for use in CINAHL
- ❑ Perceived low yield of unique references indexed to CINAHL

Introduction

Aim

- Quantify the unique useful yield from CINAHL across a sample range of NICE clinical guidelines

Secondary aim

- Identify the types of clinical questions associated with a higher useful yield from CINAHL

Methods - Sample

- The unique useful yield from CINAHL was defined as the proportion of references included in a guideline's evidence tables that were retrieved from CINAHL only

- ❑ Address a clinical question in a guideline
- ❑ Identified by searching CINAHL
- ❑ Not identified by searching the other core databases for that question (MEDLINE, EMBASE, Cochrane Library, and/or PsycInfo)

Methods - Sample

- Only references included in evidence tables were used as these are the references which directly influence recommendations

- Initially a sample of 20 guidelines had been planned but we encountered difficulties finding sufficient guidelines suitable for inclusion. Our final sample included data from 15 clinical guidelines

Methods - Sample

- A pilot study was carried out using data extracted from five NICE guidelines

- ❑ National Clinical Guidelines Centre (NCGC) x1
- ❑ National Collaborating Centre for Mental Health (NCC-MH) x1
- ❑ National Collaborating Centre for Women's Children's Health (NCC-WCH) x1
- ❑ Short Clinical Guidelines Centre (SCG team) x2

Methods - Sample

- Bipolar disorder
- Chronic kidney disease
- Dementia
- Depression in children & young people
- Diabetes in pregnancy
- Drug misuse – psychosocial
- Intrapartum care
- Irritable bowel syndrome
- Metastatic spinal cord compression
- Perioperative hypothermia
- Prophylaxis endocarditis
- Prostate cancer
- Rheumatoid arthritis
- RTIs
- Surgical site infection

Methods - Data Extraction

1. Guidelines were checked to see which platform had been used to access CINAHL

   Prior to 2009 most National Collaborating Centres were using the same platform (Ovid) to access CINAHL. After this date only NHS Evidence Search 2.0 and EBSCO could be used.

   In order to ensure consistency only guidelines searching CINAHL via Ovid were included.

Methods - Data Extraction

2. The clinical review questions addressed in each guideline were recorded.

   Economic review questions were excluded as CINAHL is not routinely searched for these questions.

   Clinical questions were classified in two ways:

- ❑ drug- or non-drug-related
- ❑ nursing/allied health or non-nursing/allied health-related

Methods - Data Extraction

3. The references found in the evidence table(s) for each clinical question were extracted and tagged according to their source:

- ❑ Indexed in any of the core databases (including CINAHL) at the time of the original search
- ❑ Indexed in CINAHL only at the time of the original search
- ❑ Found elsewhere (i.e. not indexed in any of the core databases at the time of the original search)

Results

- There were 332 clinical questions covered by 291 searches. These contained 3470 included references (some studies may appear more than once).

- ❑ 13 (0.37%) of these were unique to CINAHL
- ❑ Mean unique CINAHL refs per guideline is 0.9 (95% CI 0.15-1.59)
- ❑ Mean % references indexed only in CINAHL per guideline is 0.33% (95% CI 0.01% - 0.64%)
- ❑ 9 guidelines contained no unique CINAHL references
- ❑ 19 (5.72%) questions had one or more unique CINAHL references

Results

- Drug-related questions with one or more unique CINAHL references:

❑ Drug-related	3.95% (95% CI 0%-8.33%)
❑ Non-drug related	7.77% (95% CI 4.11%-11.42%)
❑ Relative risk of drug question having a unique CINAHL reference is 1.97 (95%CI 0.59 to 6.56)	

- Nursing/allied health-related questions with one or more unique CINAHL references:

❑ Nursing/allied health	14.89 % (95% CI 4.72%-25.07%)
❑ Non- nursing/allied health	5.11 % (95% CI 2.29%-7.92%)
❑ Relative risk of nursing/allied health question having a unique CINAHL reference is 2.92 (95% CI 1.21 to 7.02)	

Discussion

- As expected an extremely small proportion of included references were unique to CINAHL.
- The proportion is so small (<1%) that removing this database would not adversely affect search sensitivity - over 99% of references would still be retrieved.
- Nursing and allied health related questions more than twice as likely to contain unique CINAHL references.
- The difference for drug or non-drug questions was not significant.

Discussion

- Study limitations:

  - ❑ Underpowered to detect relationship between unique CINAHL yield and question type
  - ❑ Assumed if a study was indexed at the time of the original search it was picked up by that search – actual contribution of each search strategy not checked
  - ❑ Some discrepancies between included studies cited in evidence tables and reference lists

Conclusions

- The extremely low unique useful yield from CINAHL indicates that this database need not be searched routinely
- This is in line with the results of other studies (For example Aker 1994, Kelly 2008, Royle and Waugh 2003)

  - ❑ Downgrading CINAHL to non-core/subject-specific status is strongly suggested
  - ❑ Insufficient evidence to recommend for which question types CINAHL should be searched – this will need to be decided on a case-by-case basis

Areas for further study

1. Expand sample size to explore relationship between useful CINAHL yield and question type
2. Investigate relationship between useful yield from other subject-specific databases and question type
3. Expand question classification to capture more detail; existing taxonomies of clinical questions could be used (e.g. Kobayashi and Shyu 2006)
4. Expand scope of study to investigate whether guideline recommendations would have changed if CINAHL had not been searched

References

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Thank You

Any Questions?

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