

KNOWLEDGE NETWORK IN PALLIATIVE CARE

Incorporating CareSearch



Improving Search Filter Performance an analysis of what we didn't find...

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HLA Symposium, Sydney, February 2007

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Background

- Initial palliative care search filter study (JMLA Oct 2006)
- Inadequate sensitivity (45.4%)
- Why such poor performance?
 - Indexing/database factors?
 - Missed MeSH terms?
 - Subject conceptualisation?
- Why should we care?

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Objectives & Study Design

Objective 1

Describe the nature of subjects in 'false negatives'

- thematic analysis of MeSH terms

Objective 2

Empirically improve the performance (sensitivity) of the search

- frequency analysis of MeSH terms in 'false negatives'



Thematic Analysis Methods

- MeSH terms for false negatives extracted & exported into Excel
- 3 researchers independently identified major themes
- JS and RS collocated their themes against DC
- Themes discussed, consensus reached

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Thematic Analysis Results

- Different themes (DC=9, JT=23, RS= 23)
- Consensus readily achieved
- 13 final themes

Example

palliative medications (JS) and drug related therapies (RS) were mapped to therapeutics for symptoms (DC)

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Thematic Analysis Results

Diseases

Ethical issues

Existential issues

Health Professional issues

Organisational issues

Pain & other symptoms

Patient issues

Patient-Professional relationship

Psychology, communication, attitudes

Quality of life

Therapies – drug for symptoms

Therapies – non drug for symptoms

Therapies – disease modifying

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Frequency Analysis Methods

- MeSH terms for false negatives extracted & exported into Excel document
- Frequencies calculated
- Disregarded tags such as age, human etc
- A priori subjective 2.5% improvement in recall sought (frequencies = 19 or higher)



Frequency Analysis Results

- 6 additional MeSH terms identified
 - physician-patient relations (39)
 - prognosis (29)
 - quality of life (26)
 - survival rate (26)
 - treatment outcomes (23)
 - attitude to health (21)

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Frequency Analysis Results

Master Search

exp advance care planning/ OR exp attitude to death/
OR exp bereavement/ OR Death/ OR Hospices/ OR
Life support care/ OR Palliative care/ OR Exp
terminal care/ OR Terminally ill/ OR Palliat\$.tw. OR
hospice\$.tw. OR “terminal care”.tw. OR

Physician-patient relations/ OR prognosis/ OR quality
of life/ OR survival rate/ OR treatment outcomes/ OR
attitude to health

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Search Comparisons

	Sensitivity	Precision
Master Search	46.3%	72.6%
PAPAS ¹	45.9%	72.0%
NICE ²	41.0%	26.4%
SIGN ³	59.1%	21.9%
Revised Master Search	↑ 64.7%	↓ 21.9%

¹Fairman et al, 2003, ² Gysels & Higginson, 2004, ³ SIGN Guideline 75

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Discussion/Conclusions

- Revised Master Search achieved highest sensitivity...at a cost
- Original Master Search still best compromise overall
- Large number of unique MeSH terms supports that palliative care is a diffuse topic...difficult to search well

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Discussion/Conclusions

- The vexing issue
 - No obvious MeSH terms missed in Master Search
 - No obvious palliative topics in 13 'themes'
 - What makes an article relevant to 'palliative care'
- Constellation of concepts and terms, eg perhaps a cluster of MeSH terms or textwords?

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Discussion/Conclusions

- ‘palliative episode of care’ defined by the Australian National Sub-acute and Non-acute Patient (AN-SNAP) Version 1 Casemix Classification (Palliat Med 2004; 18: 227-233_
- = stage of disease (advanced or active)
- = prospect of cure (little or none)
- = treatment goals (primarily QOL)

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Discussion/Conclusions

- Also, changing nature of disease over time

prognosis, survival rate, treatment outcome, physician-patient relations, quality of life, attitude to health

All associated with the passage of time...

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Strengths & Limitations

- Frequency analysis is an objective methodology – only used for MeSH terms not textwords
- OVID Medline not static over time – marginally inaccurate frequencies
- Conclusions limited to
 - incorrect exclusions only – conceptualisation of palliative care must also include correct inclusions
 - General medical journals

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Further Research

- Further consideration of how palliative care is conceptualised by palliative and non palliative clinicians
- Exploration of clusters

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