

# Palliative Care Search Filters

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# Background

- Definition
- Problems
  - Diffuse
  - An emerging field
- Methodological filters (1990s)
  - Depend on the quality of the subject search
  - Lack of certain methodologies in palliative care ↓ usefulness

# Background

- Primary need to identify palliative care literature
- Subject filter based on approach used by methodological filters:
  - Imbed expertise
  - Established sensitivity & specificity

# Objective

- To develop and validate palliative care search filters for the general medical literature

# Methods

- 4 general medical journals hand-searched
  - BMJ, JAMA, Lancet, Annals of Internal Medicine
- 1999-2001
- Palliative care content identified
- Second electronic review (OVID Medline)
- Gold Standard Reference Set defined

# Methods

- Selection of 9 MeSH terms & 3 textwords
  - Expert knowledge, 2 existing systematic reviews, PAPAS Cochrane Review Group Strategy
- No terms focused, textwords truncated
- Explosion function reviewed individually, .tw. not .mp.

# Methods

- MeSH terms (9)

- Advance care planning, attitude to death, bereavement, hospices, life support care, palliative care, terminal care, terminally ill, death

- Textwords (3)

- Palliat\$, "terminal care" , hospice\$

# Methods

## ■ Searches

- Each individual term
- Best 4 MeSH terms OR'd
- 3 Textwords OR'd
- 9 MeSH terms with 3 textwords OR's (= Master Search)



# Methods

- Identified 3 published unvalidated relevant searches
  - Cochrane PAPAS
  - NICE
  - SIGN
- Modified content & notation for OVID Medline, & compared with Master Search

# Methods

- Comparison of search results with Gold Standard
- Calculated
  - Sensitivity
  - Specificity
  - Accuracy
  - Precision

# Methods

## Gold Standard

Relevant

Not Relevant

### Medline Searches

Articles Retrieved

a

b

Articles Not Retrieved

c

d

Sensitivity =  $a/(a+c)$

Specificity =  $d/(b+d)$

Precision =  $a/(a+b)$

Accuracy =  $(a+d)/(a+b+c+d)$

# Results

	Articles	Palliative Articles(%)
Annals of Internal Medicine	1562	96 (6.2%)
BMJ	6894	220 (3.2%)
JAMA	3972	200 (5%)
Lancet	8073	257 (3.2%)
<b>TOTALS</b>	20501	773 (3.8%)

# Results

- Highest sensitivity (MeSH)
  - Exp Terminal Care (29.1%)
  - Palliative Care (14.9%)
  - Exp Advance Care Planning (6.2%)
- Highest sensitivity (textwords)
  - Palliat\$ (7.4%)
  - Hospice\$ (2.6%)
  - “terminal care” (0.4%)

# Results

- Lowest specificity with any single term was 99.37%
- 100% specificity using
  - Hospices (MeSH)
  - Hospice\$ (textword)
  - "terminal care"

# Results

	Sensitivity	Specificity	Precision	Accuracy
<b>Master</b>	45.4%	99.3%	73%	97.3%
<b>PAPAS</b>	45.2%	99.3%	71.4%	97.3%
<b>SIGN</b>	40.6%	95.6%	26.4%	93.5%
<b>NICE</b>	56.9%	92.1%	22%	90.8%

# Discussion

- Master search, found <50% known articles
- Master search approximates PAPAS search
- Trade-off: ↑ sensitivity using SIGN search offset by ↓ specificity and precision (1996 articles vs 481)



# Discussion

- Why, despite all the expert, collaborative & international opinion represented in the 4 searches used, did we fail to achieve acceptable sensitivity?
  - Sufficiency of MeSH terms?
  - Authors don't recognise content as relevant for palliative care?

# Discussion

- Implications for Evidence Based Clinical Practice?
  - 'Finding' underpins 'doing'
  - Bias and systematic reviews
- Implications for Evidence Based Librarianship?

# Future Directions

- ↑ sensitivity of master search by identifying additional textwords and phrases
  - Investigating how palliative care is conceptualised and described by palliative and non-palliative specialties
  - Analyses of incorrect exclusions
  - Content analysis of abstracts/full text of gold standard reference set
- Replication/validation in other databases

# Strengths

- 4 general medical journals over 3 years
- Defined methodology
- Multiple clinicians/librarian involved
- Consulted existing reviews/strategies
- Computer programme to compare findings for reliability

# Limitations

- 2<sup>nd</sup> generation approach, ie subjective
- Computer programme limited to results comparison, not search permutations

# Conclusions

- Confirmed the difficulty of identifying palliative care literature in the general medical literature
- Highlights the importance of a systematic approach to development & validation of strategies
- Provides a starting point for improving identification of palliative care literature

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