



How to read a scientific paper

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NSCPM Module 1, November 2021

Aim

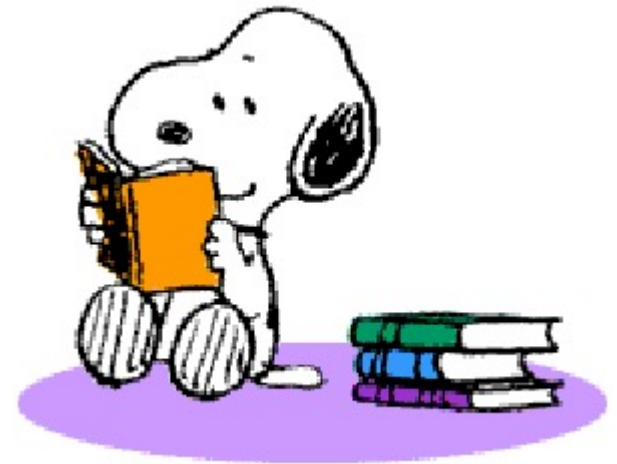
- To give and share some tips for
 - how to keep yourself updated in palliative care
 - how to read a scientific paper

- mostly for regular updating



Reading is the **KEY** to learning

How do **you** do it?



A photograph of interlocking puzzle pieces in shades of blue, green, and yellow, arranged in a grid pattern. The pieces are slightly raised, creating a 3D effect. The background is a light, neutral color.

OXFORD

Oxford Textbook of
**Palliative
Medicine**

SIXTH EDITION

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Nathan I. Cherny
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ALL CONTENT AVAILABLE AT OXFORDMEDICINE.COM

Scientific papers

- PubMed search – number of publications 2021
 - Palliative 9 809
 - Palliative care 7 978
 - Pain 65 617
 - Morphine 2 633
 - Euthanasia 776
- Impossible to read all

Strategies to limit the number of papers

Papers on palliative, 2021

- Total number 9 809
- Only English 9 559
- Limit to humans 5 091
- Include only one category
 - Clinical trials 233
 - Systematic reviews 269
 - Meta-analyses 84
 - Guidelines 28



Strategies to limit the number of papers

- Read only palliative care journals (2021)
 - Palliative Medicine 208
 - J Pain Symptom Management 461
- Read papers by well-known researchers
 - Per Sjøgren 8
 - Irene Higginson 26
 - Eduardo Bruera 90

What are the main palliative care journals?

- Palliative Medicine – research journal of the EAPC (Sage)
- Journal of Pain and Symptom Management (Elsevier)
- BMC Palliative Care – open access (only online)
- Journal of Palliative Care – Canada, from 1985 – interprof.
- Journal of Palliative Medicine – EAPC journal; US, AUS, NZ
- American Journal of Hospice and Palliat. Medicine (Sage)
- Supportive Care in Cancer
- BMJ Supportive and Palliative Care

What are the main palliative care journals?

- Palliative Medicine – research journal of palliative care (Sage)  3.612
- Journal of Pain and Symptom Management (Elsevier)  3.234
- BMC Palliative Care – open access (only online) (Springer) BioMed Central
- Journal of Palliative Care – Canada, from 1985
- Journal of Palliative Medicine – US, Australia, NZ (SL)
- American Journal of Hospice and Palliat. Medicine (Sage)
- Supportive Care in Cancer
- BMJ Supportive and Palliative Care

 4.762

A Comprehensive Assessment of Impact with Article-Level Metrics (ALMs)

ALMs are quantifiable measures that document the many ways in which both scientists and the general public engage with published research.

Traditional metrics, which consider only citation count and journal name to assess impact, capture a narrow view of a work's value and do so only after the accumulation of citations in academic literature.



Score in context

Is one of the highest ever scores in this journal (ranked #1 of 168)

show more...

Mentioned by

- 135 tweeters
- 8 Facebook pages
- 1 Google+ user

Readers on

- 3 Mendeley
- 0 CiteULike

Track this article

- Get email updates when this article is shared

Disc degeneration and chronic low back pain: an association which becomes nonsignificant when endplate changes and disc contour are taken into account.

Twitter Facebook Google+ Score Demographics Help

So far Altmetric has seen 150 tweets from 135 accounts with an upper bound of 194,699 combined followers.



Kevin Ehl
@cafeportmoody
11 followers

From Dr Steven Silk (thanks for the concise statement): "Disc Degeneration Does NOT Cause Back Pain. We've been... <http://t.co/BXmNggPQQD>

09-Nov-2013



Ricky Davis
@eliteyourself
174 followers

Another article showing the poor correlation between imaging and clinical presentation <http://t.co/PLFFUkhCwc>

10-Nov-2013



Biblosalut
@biblosalut
999 followers

#PublicSalutIB Disc degeneration and chronic low back pain: an association which becomes nonsignific... <http://t.co/eGWKGgo9qz> #HSL #HMAN

19-Nov-2013

Reply Retweet Favorite



Alfonso Villegas Rey
@avillegasrey
842 followers

#PublicSalutIB Disc degeneration and chronic low back pain: an association which becomes nonsignific... <http://t.co/eGWKGgo9qz> #HSL #HMAN

19-Nov-2013



The Sports Physio
@AdamMeakins
20,164 followers

Disc degeneration seen on MRI is NOT a cause of low back pain <http://t.co/jcxjwEm8M>

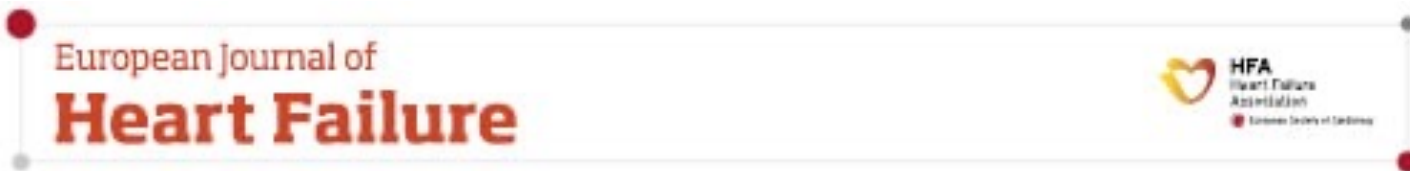
24-Nov-2013

What is the purpose of reading?

- To get (further) insight into a topic you are interested in
 - Read a book (chapter) or a recent review
 - Use PubMed or other databases to find new papers
 - Sign up for E-mail updates /alerts
- To learn something new
 - Browse through a journal within your own field or a general field. The old paper version best?
 - Sign up for E-mail updates /alerts

What is the purpose of reading?

- To get insight into a general topic



Position Paper
Open Access

Integration of a palliative approach into heart failure care: a European Society of Cardiology Heart Failure Association position paper

[Loreena Hill](#), [Tal Prager Geller](#), [Resham Baruah](#), [James M. Beattie](#), [Josiane Boyne](#), [Noemi de Stoutz](#), [Giuseppe Di Stolfo](#), [Ekaterini Lambrinou](#), [Anne K. Skibelund](#), [Izabella Uchmanowicz](#) ... [See all authors](#)

First published: 06 September 2020

<https://doi.org/10.1002/ejhf.1994>

Citations: [20](#)

What is the purpose of reading?

- To get new insight into a topic you know

J Palliat Med 2021 Nov 16. Online ahead of print.

Clinician Perspectives Guiding Approach to Comprehensiveness of Palliative Care Assessment

[Nathan A Gray](#)¹, [Arif H Kamal](#)², [Laura C Hanson](#)³, [Janet Bull](#)⁴, [Jean S Kutner](#)⁵, [Christine S Ritchie](#)⁶, [Kimberly S Johnson](#)^{7,8,9}

Abstract

Background: National Consensus Project for quality palliative care guidelines emphasizes the importance of a comprehensive assessment of all care domains, including physical, psychosocial, and spiritual aspects of care, for seriously ill patients. However, less is known about how real-world practice compares with this guideline. **Objective:** To describe clinicians' assessment practices and factors influencing their approach. **Design:** This is a two-part web-based survey of palliative care clinicians from five academic groups in the United States. **Results:** Nineteen out of 25 invited clinicians (physicians, nurse practitioners, and physician assistants) completed the survey. A majority (62%) reported that, although some elements of assessment were mandatory, their usual practice was to tailor the focus of the

How to save time when reading an original paper

- Read the title and abstract first
 - Is the topic of interest?
 - Is the finding going to change or add to your current knowledge of this topic?
- If no to one of these questions, stop reading

Supportive Care in Cancer (2021) 29:6595–6603
<https://doi.org/10.1007/s00520-021-06248-z>

ORIGINAL ARTICLE



Interventions and symptom relief in hospital palliative cancer care: results from a prospective longitudinal study

Morten Thronæs^{1,2} · Erik Torbjørn Løhre^{1,2} · Anne Kvikstad^{1,2} · Elisabeth Brenne^{1,2} · Robin Norvaag² · Kathrine Otelie Aalberg¹ · Martine Kjølberg Moen^{3,4} · Gunnhild Jakobsen^{1,2} · Pål Klepstad^{3,4} · Arne Solberg^{1,2} · Tora Skeidsvoll Solheim^{1,2}

Received: 28 January 2021 / Accepted: 20 April 2021 / Published online: 3 May 2021
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Abstract

Purpose To study the use of interventions and symptom relief for adult patients with incurable cancer admitted to an acute palliative care unit providing integrated oncology and palliative care services.

Methods All admissions during 1 year were assessed. The use of interventions was evaluated for all hospitalizations. Patients with assessments for worst and average pain intensity, tiredness, drowsiness, nausea, appetite, dyspnea, depression, anxiety, well-being, constipation, and sleep were evaluated for symptom development during hospitalization. Descriptive statistics was applied for the use of interventions and the paired sample *t*-test to compare symptom intensities (SIs).

Results For 451 admissions, mean hospital length of stay was 7.0 days and mean patient age 69 years. More than one-third received systemic cancer therapy. Diagnostic imaging was performed in 66% of the hospitalizations, intravenous rehydration in 45%, 37% received antibiotics, and 39% were attended by the multidisciplinary team. At admission and at discharge, respectively, 55% and 44% received oral opioids and 27% and 45% subcutaneous opioids. For the majority, opioid dose was adjusted during hospitalization. Symptom registrations were available for 180 patients. Tiredness yielded the highest mean SI score (5.6, NRS 0–10) at admission and nausea the lowest (2.2). Significant reductions during hospitalization were reported for all assessed SIs ($p \leq 0.01$). Patients receiving systemic cancer therapy reported symptom relief similar to those not on systemic cancer therapy.

Conclusion Clinical practice and symptom relief during hospitalization were described. Symptom improvements were similar for oncological and palliative care patients.

Keywords Cancer · Symptoms · Acute palliative care unit (APCU) · Palliative · Integration · Symptom development

How to save time when reading an original paper

Are you an expert in the topic?

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graph TD; Q[Are you an expert in the topic?] --> Yes[Yes]; Q --> No[No];
```

Yes

Don't spend time on the Introduction or Discussion – you know what initiated the study and you yourself can interpret the findings

No

Read the Introduction and the Discussion – to see why the study was needed and the interpretation of the findings

Questions used when assessing an article

The basic questions

- Why was the study done?
- What clinical question did the authors address?
- What did they find?
- How did they do it (what type of study)?

“Does this new research add to the body of knowledge in any way?”

- Was the study original?
 - Has anyone ever done a similar study?
 - What does this study add?
 - New original question?
 - Larger population than previous studies?
 - Different population?
 - Improved methods?

Assessing the quality of a paper

- Whom is the study about?
 - How were the participants recruited?
 - Who was included?
 - Who was excluded from the study?
 - Were the subjects studied in “real life” circumstances?

Assessing the quality of a paper

- Was the design of the study sensible?
- What specific intervention or other manoeuvre was being considered, and what was it being compared with?
- What outcome was measured, and how?
- Was systematic bias avoided or minimized?
- Was the study large enough, and continued for long enough?

Assessing the quality of a paper

- How are the results presented?
 - Do the results reflect the aim of the study?
 - Were the study groups comparable?
 - Were the results also presented as absolute numbers?
 - Is the result a predefined end point?
 - Are excluded patients and drop-outs accounted for?
 - Are all results a consequence of assessments described in the methods section?
 - Do the results have clinical significance?

Your final evaluation – after reading

- Do you know why they did the study?
- Are the patients similar to your patients?
- Have the authors assessed what matters?
- Do you trust the findings?

What else do you read?

I have added a few slides about
evaluating systematic reviews

Evaluating systematic reviews

- Can you find an important clinical question which the review addressed?
- Was a thorough search done of the appropriate databases and were other potentially important sources explored?
- Was methodological quality assessed and the trials weighted accordingly?
- How sensitive are the results to the way the review has been done?

You need to work with the «what ifs» (sensitivity analysis)

- What if the authors of the systematic review had changed the inclusion criteria?
- What if they had excluded unpublished studies?
- What if their “quality weightings” had been assigned differently?
- What if trials of lower methodological quality had been included (or excluded)?
- What if all the patients unaccounted for in a trial were assumed to have died (or been cured)?
- An exploration of “what ifs” is known as a sensitivity analysis.
- If you find that fiddling with the data in various ways makes little or no difference to the review's overall results, you can assume that the review's conclusions are relatively robust.
- If, however, the key findings disappear when any of the what ifs changes.....