



Ontario Health

Cancer Care Ontario

Evidence-Based Series 20-2 REQUIRES UPDATING

A Quality Initiative of the
Program in Evidence-Based Care (PEBC), Cancer Care Ontario (CCO)

Effective Teaching Strategies and Methods of Delivery for Patient Education

*The Expert Panel on Effective Teaching Strategies and Methods of Delivery for Patient
Education*

December 10, 2009

Evidence-Based Series (EBS) 20-2 was reviewed in 2020 and determined to REQUIRE UPDATING by the Expert Panel on Effective Teaching Strategies and Methods of Delivery for Patient Education. It is still appropriate for this document to be available while this updating process unfolds. See Section 4: Document Assessment and Review for details.

EBS 20-2 is comprised of 4 sections. You can access the summary and full report here:
<https://www.cancercareontario.ca/en/guidelines-advice/types-of-cancer/851>

- Section 1: Guideline Recommendations
- Section 2: Evidentiary Base
- Section 3: EBS Development Methods and External Review Process
- Section 4: Document Assessment and Review

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PEBC Report Citation (Vancouver Style): Jusko Friedman A, Cosby R, Boyko S, Hatton-Bauer J, Turnbull G; Patient Education Panel. Effective teaching strategies and methods of delivery for patient education. Papadakos J, Walker-Dilks C, reviewers. Toronto (ON): Cancer Care Ontario; 2009 Dec 10 [Requires updating 2020 Aug]. Program in Evidence-based Care Special Report No.: 20-2 REQUIRES UPDATING.

Journal Citation (Vancouver Style): Friedman AJ, Cosby R, Boyko S, Hatton-Bauer J, Turnbull G. Effective teaching strategies and methods of delivery for patient education: a systematic review and practice guideline recommendations. J Canc Educ. 2011;26(1):12-21.

PUBLICATIONS RELATED TO THIS REPORT

Evidence Summary Citation (Vancouver Style): Howell D, Harth T, Brown J, Bennett C, Boyko S, and the Patient Education Program Committee. Self-management education for patients with cancer: evidence summary. Toronto (ON): Cancer Care Ontario; 2016 January 05. Program in Evidence-based Care Evidence Summary No.: 20-3.

Guideline Report History

GUIDELINE VERSION	SYSTEMATIC REVIEW		PUBLICATIONS	NOTES and KEY CHANGES
	Search Dates	Data		
Original December 10, 2009	1995 to May 2009	Full Report	Web publication	N.A.
Original Reviewed August 21, 2020	2009 to May 2019	New data found in Section 4: Document Assessment and Review	Updated web publication	2009 recommendations REQUIRE UPDATING

Evidence-Based Series 20-2: Section 1

**Effective Teaching Strategies and Methods of Delivery
for Patient Education:
Guideline Recommendations**

The 2009 guideline recommendations

REQUIRE UPDATING

It is still appropriate for this document to be available while this updating process unfolds

QUESTION

What are the most effective teaching strategies and methods of delivery for patient education?

TARGET POPULATION

The target population for this intervention is any individual who seeks services from the cancer system covering the entire continuum of care (prevention, screening, diagnosis, treatment, survivorship, and palliative care).

INTENDED USERS

The intended users of this guidance document are healthcare professionals involved in patient education. This may include patient education specialists and healthcare administrators and managers. Physicians, nurses and allied healthcare professionals with an interest in patient education may also be interested in this document.

RECOMMENDATIONS

The following recommendations are informed by the currently available evidence (see Section 2). The recommendations are not meant to provide specific details with respect to the content provided through patient education. These recommendations are meant to provide an overview concerning the efficaciousness of the teaching strategies and methods of delivery that have been evaluated in the literature.

Teaching Strategies

- Computers can be an effective patient education teaching strategy, especially when patients are given information specific to their own situation rather than general information.
- Audiotapes of patient consultations can be effective for patient recall of verbal education.
- Videotapes (or more modern formats such as CDs and DVDs) can be an effective teaching strategy in delivering patient education.
- The provision of written materials, and, especially, tailored print materials, can also be an effective patient education teaching strategy. All written information should be prepared at a reading level appropriate for the general population. New patient information packages provided to patients prior to their first clinic visit are very useful to them.
- Verbal instruction should only be used in conjunction with another teaching method.
- Demonstrations, if appropriate for the situation, can be a very effective teaching strategy.
- The use of multiple teaching strategies is a good option for patient education.
- Use visual aids appropriately. Pictures and illustrations are useful for enhancing printed materials especially in those with low literacy skills. The illustrations should be non-ambiguous and should be accompanied by text written in simple language.

Methods of Delivery

- Patient-specific information (i.e., information specific to the individual's actual clinical situation) should be provided to patients, rather than general information about their cancer.
- Patient education should be structured. An ad hoc random question and answer format session is not sufficient.
- Patient education should involve multiple teaching strategies.
- Patient education for minority groups should be culturally sensitive.

KEY EVIDENCE

- The evidentiary base is composed of 19 systematic reviews (1-19) and four meta-analyses (20-23).
- In the summaries of the evidence that follows, the range of the standardized effect sizes reported in the primary literature is presented, as is the range of p-values. When p-value or effect size has not been reported, this is also indicated. Standardized effect sizes greater than zero reflect an improvement.
- Computer interventions increase patient knowledge (Effect Size [ES], 0.12-1.03; p, Not Reported [NR]), reduce anxiety and increase satisfaction (ES, -0.05-0.40; p, NR) (1,6,7,11,12,15,18-20,23). ES is explained in the Methods section in Section 2 of this evidence-based series.
- Audiotapes of consultations increase patient knowledge. (ES, NR; p-values from individual studies, <0.001-0.05) (17).
- Videotape interventions increase patient knowledge (ES, 0.12-1.03; p=NR) (7,15,19,20) and satisfaction (ES, 0.05-0.40; p, NR) (7,20).
- New patient information packages improve patient knowledge, especially if provided prior to the first clinic appointment (ES, NR; p, NR) (4).
- Verbal instruction is the least effective teaching strategy and should not be used alone (ES, 0.28; p, NR) (23).

- Demonstrations are a good teaching strategy with a large effect size (ES, 0.79; p, NR) (23).
- The use of multiple methods is a good teaching strategy with a moderate effect size (ES= 0.44; 67% of patient receiving patient education by multiple methods had better outcomes than did patients receiving standard care; p=NR) (23).
 - Illustrations to complement text result in greater patient comprehension than text alone especially in those with low literacy skills (ES, NR; p-values from individual studies, 0.033-0.05) (14).
 - Patient-specific information is better than general information with respect to patient knowledge, anxiety and satisfaction (ES, NR; p, NR) (4).
 - Culturally sensitive patient education for minorities improves patient knowledge (ES, NR; p, NR) (8,13,21).

QUALIFYING STATEMENTS

- The clinic should make any necessary equipment (e.g., computer, audiotape player, videotape player, DVD player) available, in the clinic or patient care areas, for patients who do not have that equipment at home.
- Much of the evidence available is based on effect size meta-analysis. Therefore it is difficult to estimate magnitude of effect.
- The evidence underpinning these recommendations is complex and not easily summarized; please refer to Section 2 of this report for more details.
- This guideline articulates the best evidence on effective teaching strategies in providing a structured patient education program. The learning relationship between patients, families, and healthcare providers; tailoring teaching interventions; readiness to learn; individual's learning style; and information seeking behaviours, i.e., the influence of monitoring versus blunting behaviours are critical in patient teaching. While beyond the scope of this guideline, these are important considerations in a patient-centered approach to patient education. Further, as the prevalence of cancer increases and as cancer is seen as a chronic disease, guidance for self-management/self-care and therapeutic patient education interventions are recommended.

FUTURE RESEARCH

More research is needed on methods of delivery for patient education. In addition, there is a growing patient education literature on health outcomes and changes of behaviour that should be evaluated systematically.

RELATED GUIDELINES

PEBC Evidence-Based Series Reports (EBS):

- EBS Special Report: *Establishing Comprehensive Cancer Patient Education Services: A Framework to Guide Ontario Cancer Education Services* (<https://www.cancercareontario.ca/en/guidelines-advice/types-of-cancer/301>).
- EBS 19-2 *Provider-Patient Communication: A Report of Evidence-Based Recommendations to Guide Practice in Cancer* (<https://www.cancercareontario.ca/en/guidelines-advice/types-of-cancer/2256>).

Funding

The PEBC is a provincial initiative of Cancer Care Ontario supported by the Ontario Ministry of Health and Long-Term Care through Cancer Care Ontario. All work produced by the PEBC is editorially independent from its funding source.

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IN REVIEW