

## Patient decision aids for people facing health treatment or screening decisions

### Review Question

Do patient decision aids assist people when making decisions about treatment or screening?

### What are decision aids?

Patient decision aids are designed to support consumers to be active participants in the decision making process. They outline the benefits and harms of specific options for treatment or screening and help patients to clarify personal values relating to the decision. Patient decision aids may be pamphlets, videos, or web-based tools. (For examples see page 2).

### Review Findings

Based on the results of 115 studies with a total of 34,444 participants, the authors of this review concluded that:

#### *Patient decision aids compared with usual care:*

- There is high quality evidence that decision aids improve people's knowledge regarding options, and reduce their decisional conflict related to feeling uninformed and feeling unclear about their personal values
- There is moderate quality evidence that decision aids stimulate people to take a more active role in decision making and improve accurate risk perceptions when probabilities are included in decision aids
- There is low quality evidence that decision aids improve congruence between the chosen option and the patient's values
- There is further evidence that decision aids lead to more informed, values-based choices and improve patient-practitioner communication
- Decision aids have a variable effect on consultation length and patient choices, but do reduce the choice of discretionary surgery
- Decision aids do not appear to lead to adverse effects

#### *Detailed patient decision aids compared with simple patient decision aids:*

- Detailed decision aids improve knowledge and reduce decisional conflict (both feeling uninformed and feeling unclear about values)
- Detailed decision aids make no difference to patient participation in decision making or to the proportion of people undecided
- Detailed decision aids had no effect on choice of surgery

### Full citation for this review:

Stacey D, Légaré F, Col NF, Bennett CL, Barry MJ, Eden KB, Holmes-Rovner M, Llewellyn-Thomas H, Lyddiatt A, Thomson R, Trevena L, Wu JHC. [Decision aids for people facing health treatment or screening decisions](#). *Cochrane Database of Systematic Reviews* 2014, Issue 1 . Art. No.: CD001431. DOI: 10.1002/14651858.CD001431.pub4

### This summary is relevant to:

This evidence bulletin can be used by clinicians and decision makers who are interested in patient decision support tools for consumers.

### This summary includes:

- Key findings from research based on a systematic review (pg 1)
- Considerations about the relevance of this research to decision makers and clinicians (pg 2)
- A more detailed description of the research (pGs 3 & 4)

### Not included:

- Additional evidence
- Detailed description of decision aids or how to implement them
- Recommendations

### What is a systematic review?

A systematic review aims to locate, appraise and synthesise all of the available evidence related to a specific research question. Authors adopt rigorous methods to minimise bias as a way of producing reliable findings with the ultimate goal of making the evidence more useful for practice. See [navigatingeffectivetreatments.org.au](http://navigatingeffectivetreatments.org.au) for more information

## Relevance to the health care context in Victoria, Australia

<p>The broader policy and clinical context</p>	<p>Anecdotal evidence suggests patient decision aids are not widely used in Australia, but are gaining increasing prominence. The Victorian Government's <a href="#">Doing it with us not for us Strategic direction 2010-13</a> policy document suggests patient decision aids may be a way of meeting its standard around involving patients in their care. Additionally, key decision aid concepts such as informed patient choice and shared decision making underpin much of the <a href="#">National Safety and Quality Health Service Standards</a>.</p>
<p>Populations and settings in which this is relevant</p>	<p>The results of this review are highly relevant to the Australian health care context; the majority of studies were conducted in developed countries (with 15 in Australia). The evidence is predominantly drawn from studies covering decisions about major surgery and screening programs for a range of different cancers (prostate, colon and genetic testing). Whilst this covers a large range of health decisions, it is unclear how applicable these findings are to other health decisions. It is also uncertain whether the results are transferable to patients from culturally and linguistically diverse backgrounds, patients with poor health literacy, patients with communication difficulties or patients with multiple morbidities/complex health conditions.</p>
<p>Implications for decision makers</p>	<p>The review provides support for the inclusion of patient decision aids in clinical practice guidelines and relevant policy frameworks. Consideration should be given to the clinical context in which patient decision aids may be implemented. The Ottawa Hospital Research Institute provides a <a href="#">clear framework</a> for policy makers to guide the implementation of decision aids including providing an <a href="#">online tutorial</a> designed to train clinicians in the use of decision aids. There is currently insufficient evidence to draw conclusions about the effect of patient decision aids on cost/resource use but the review authors suggest there is a decrease in uptake rates for some elective procedures, particularly prostate specific antigen (PSA) screening.</p>
<p>Implications for clinicians</p>	<p>The <a href="#">Royal Australian College of General Practitioners</a> provides practical guidance about incorporating patient decision aids into consultations. Patient decision aids are designed to support - not replace - counselling from health professionals about health care options. This review provides support for the continued use or addition of decision aids in a number of clinical contexts. Whilst the review authors found insufficient evidence regarding the effect on cost and consultation length, the review does show a significant increase in patient knowledge and participation in the decision process. Patient decision aids exist for a wide range of health conditions and many are freely available online (see Related Resources). <a href="#">Online training</a> in patient decision aid use is also available.</p>

### Related resources

#### Systematic reviews

- Edwards 2013. [Personalised risk communication for informed decision making about taking screening tests](#).
- Akl. 2011. Using [alternative statistical formats for presenting risks and risk reductions](#)
- Legare. 2010. [Interventions for improving the adoption of shared decision making by healthcare professionals](#)

#### Evidence bulletins

- Personalised risk communication
  - Using alternative statistical formats for presenting risk and risk reductions
  - Framing of health information messages
- Available at the [Health Knowledge Network](#)

#### Decision aid resources

- Ottawa Hospital Research Institute, [Patient Decision Aids](#)
- Sydney School of Public Health, [Decision Resources](#)
- Royal Australian College of General Practitioners (RACGP): [Putting Prevention into Practice](#) (2nd Ed)

#### Example decision aids

- General decision aid: [Ottawa Personal Decision Guide](#)
- [Lung transplant for cystic fibrosis](#) decision aid (Australia/Canada)
- [Perinatal testing](#) decision aid, Murdoch Children's Research Institute (Australia)
- [MMR immunisation online decision aid](#), National Centre for Immunisation Research & Surveillance (Australia)

## Background

Identifying and making a health treatment or screening decision is not always straightforward. Health decisions can be 'preference sensitive' due to insufficient evidence about outcomes or the need to trade off benefits and harms. In these situations, decision aids may help consumers to consider the options from a personal viewpoint (e.g. how important the possible benefits and harms are to them).

## Information about the review

The authors conducted a detailed search of studies published up to June 2012. The following inclusion criteria were used to guide study selection:

### *Types of studies*

- Randomised controlled trials

### *Participants*

- People making a real-life decision about screening or treatment options for themselves, for a child, or for another person who is under their care.

### *Types of intervention*

A decision aid was defined as an intervention that is designed to support people to make an informed choice about their health from a range of options [For examples of various decision aids, refer to page 2].

### *Comparisons*

The following comparisons were made:

- Decision aids versus usual care
- Detailed decision aids versus simple decision aids

For studies in which there was more than one intervention group and one control group, the authors extracted data from the two groups that provided the strongest contrast. For example, the group that used the most detailed decision aid was compared with the group that used the least detailed decision aid.

### *Outcomes*

The following outcomes were examined:

- Attributes of the decision (knowledge, accuracy of risk perception, values congruence)
- Attributes of the decision process (decisional conflict, patient-practitioner communication, participation in decision making, proportion undecided, satisfaction)

- Behaviour (effect on choices)
- Healthcare system (costs, consultation length)

## Main results

The review included 34,444 participants in 115 studies. The majority of studies were conducted in developed countries (15 in Australia). The decisions participants faced included major and minor surgery, medications, and prostate and colon cancer screening, among others.

### *Effectiveness of decision aids*

#### Decision aids compared with usual care

- There is high quality evidence that decision aids improve people's knowledge regarding options, and reduce their decisional conflict related to feeling uninformed and feeling unclear about their personal values
- There is moderate quality evidence that decision aids stimulate people to take a more active role in decision making and improve accurate risk perceptions when probabilities are included in decision aids
- There is low quality evidence that decision aids improve congruence between the chosen option and the patient's values
- There is further evidence that decision aids lead to more informed, values-based choices and improve patient-practitioner communication

See the results table on page 4 for numerical presentation of key results.

#### Detailed compared with simple decision aids

Nineteen studies compared detailed with simple decision aids.

- Detailed decision aids improve knowledge and reduce decisional conflict (both feeling uninformed and feeling unclear about values)
- Detailed decision aids make no difference to patient participation in decision making or the proportion of people undecided
- Detailed decision aids have no effect on choice of surgery

## What this review does not show

The effects on adherence with the chosen option, cost-effectiveness, use with lower literacy populations, and level of detail needed in decision aids requires further evaluation.

**Results table (patient decision aids versus usual care)**

Outcome	Impact with usual care	Impact with decision aid	Relative effect* (95% confidence interval)	No. of participants (studies)	Evidence Quality (GRADE)#
<b>Knowledge</b> (0 to 100; higher numbers indicate better knowledge)	Mean knowledge score was 56.9, range 31.0 to 85.2	Mean knowledge score was 13.34 higher (11.17 to 15.51 higher)		10,842 (42 studies)	High
<b>Knowledge (detailed versus simple decision aid)</b> (0 to 100; higher numbers indicate better knowledge)	Mean knowledge score ranged from 44.0 to 85.0 for <b>simple decision aids</b>	Mean knowledge score was 5.52 higher (3.90 to 7.15 higher) with <b>detailed decision aids</b>		3,531 (19 studies)	Not reported
<b>Accurate risk perceptions</b>	30 patients per 100	54 patients per 100 (46 to 65)	RR 1.82 (1.52 to 2.16)	5,868 (19 studies)	Moderate
<b>Congruence between chosen option and their values</b>	32 patients per 100	50 patients per 100 (37 to 63)	RR 1.51 (1.17 to 1.97)	4,670 (13 studies)	Low
<b>Decisional conflict—uninformed sub-scale</b> (0 to 100; lower score indicated feeling more informed)	Mean decisional conflict scores ranged from 12.8 to 49.1	Mean decisional conflict score was 7.26 lower (9.73 to 4.78 lower)		4,343 (22 studies)	High
<b>Decisional conflict—unclear values sub-scale</b> (0 to 100; lower score indicates feeling more clear)	Mean score for unclear values ranged from 15.5 to 51.29	Mean score for unclear values was 6.09 lower (8.50 to 3.67 lower)		3,704 (18 studies)	High
<b>Participation in decision making</b>	17 patients per 100	10 patients per 100 (9 to 14)	RR 0.66 (0.53 to 0.81)	3,234 (14 studies)	Moderate

\* Relative effect is measured as mean difference (MD), or relative risk (RR).

# For more information on the GRADE working group's rating of quality of evidence go to [www.gradeworkinggroup.org](http://www.gradeworkinggroup.org)

This evidence bulletin draws on the format developed for SUPPORT summaries (for more information on SUPPORT summaries see [www.supportsummaries.org](http://www.supportsummaries.org)). It replaces the previous version of this bulletin (2009), which was based on the 2009 version of this review.

### Health Knowledge Network

The Health Knowledge Network is the knowledge transfer arm of the Centre for Health Communication and Participation. The Centre is funded by the Quality, Safety and Patient Experience Branch, Department of Health, Victoria, Australia.

The Health Knowledge Network summarises reviews published by the Cochrane Consumers and Communication Review Group.

### Contact Us

Health Knowledge Network, Centre for Health Communication and Participation  
La Trobe University, Bundoora, VIC 3086, Australia.  
Ph: +61 3 9479 5730

E: [hkn@latrobe.edu.au](mailto:hkn@latrobe.edu.au)

W: [www.latrobe.edu.au/aipca/about/chcp/health-knowledge-network](http://www.latrobe.edu.au/aipca/about/chcp/health-knowledge-network)

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