Rapid recommendations, point-of-care decision aids, and shared decision-making

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I have no financial conflict of interest in relation to this presentation.

My intellectual conflict of interests:

- Member of the GRADE Working Group [http://www.gradeworkinggroup.org](http://www.gradeworkinggroup.org)
- Deputy editor ACP journal club – McMaster PLUS Evidence Alerts
- Member of the MAGIC organization [http://magicproject.org](http://magicproject.org)
  A non-for-profit initiative to improve the creation, dissemination, and dynamic updating of guidelines, evidence summaries and decisions aids.
- Co-founded the BMJ RapidRec [http://www.bmj.com/rapid-recommendations](http://www.bmj.com/rapid-recommendations)
Plan for presentation

1. Introducing the Evidence Ecosystem
2. Problems with current guidelines
   - Methodology
   - Examples
4. Guidelines and Shared Decision making
5. Back to the enhancing the Evidence Ecosystem
Evidence Ecosystem: challenges and opportunities

- Evidence synthesizers
- Evidence disseminators to clinicians
- Evidence disseminators to patients
- Evidence implementers
- Evidence evaluators & improvers
- Evidence producers

Akers, Brandt, Agoritsas, et al. [in preparation]
Criticism on guidelines

Failure of Clinical Practice Guidelines to Meet Institute of Medicine Standards

Two More Decades

Justin Kung, MD; Ram Bhat, MD

BACKGROUND: In March 2007, the Institute of Medicine (IOM) issued a new set of guidelines intended to assess the quality of medical guidelines being produced. To our knowledge, there has been no view of adherence to standards introduced since one published in 1999.

METHODS: Two reviews of the latest guidelines selected at random from the Internet were conducted. The authors analyzed 18 of 25 IOM standards.

RESULTS: The overall mean number of standards satisfied (out of 25) was 17.5.

In Guidelines We Cannot Trust

The Institute of Medicine (IOM) developed its standards for guideline development. In the early 1990s, the IOM took the lead in developing guidelines to improve quality of care. In adherence to these standards, experts currently rate guideline development as a 5 on a scale of 1 (poor) to 7 (excellent).

In the late 1990s, 2 colleagues and I conducted a study to assess the quality of clinical practice guidelines produced by the IOM. The IOM developed guidelines to improve quality of care. Unfortunately, in guidelines from the late 1990s, we found that the IOM failed to adhere to its own standards. In conclusion, we found that the IOM's standards were not met, and that we cannot trust the quality of guidelines produced by the IOM.
Seventy-Five Trials and Eleven Systematic Reviews a Day: How Will We Ever Keep Up?

Hilda Bastian¹*, Paul Glasziou², Iain Chalmers³

- 3000-4000 publications / day
- 75-100 RCT & 10-20 SR
- 60% of clinical questions are not informed by current best evidence

Staying up-to-date? Signal vs. noise? Trustworthy?

@ThomasAgoritsas
> 9400 Recommandations

DynaMed Plus®:
the next-generation clinical information resource designed to decrease time to answer
Do clinicians want recommendations: a RCT

**Scenario 1**

- Evidence summary
- Evidence summary + Recommendation

**Scenario 2**

- Evidence summary
- Evidence summary + Recommendation

*Order of scenarios also at random

Do clinicians want recommendations: a RCT (2)

Scenarios involving with STRONG recommendations
Median 6 (p < 0.001)

Preference for NOT having a recommendation
1 2 3 4 5 6 7
5/219 (2%) 5/219 (2%) 6/219 (3%) 14/219 (6%) 21/219 (10%) 85/219 (39%) 83/219 (38%)

Preference for having a recommendation
5/219 (2%) 14/219 (6%) 21/219 (10%) 85/219 (39%) 83/219 (38%)

Scenarios involving with WEAK recommendations
Median 6 (p < 0.001)

Preference for NOT having a recommendation
1 2 3 4 5 6 7
8/248 (3%) 10/248 (4%) 9/248 (4%) 20/248 (8%) 35/248 (14%) 91/248 (37%) 75/248 (30%)

Preference for having a recommendation
36/248 (15%) 44/248 (18%) 35/248 (14%) 70/248 (28%) 195/248 (79%) 236/248 (96%) 248/248 (100%)

1. I strongly disagree
2. I disagree
3. I somewhat disagree
4. I am neutral (No preference)
5. I somewhat agree
6. I agree
7. I strongly agree (I prefer recommendations accompanying the evidence)

Institute of Medicine (IOM) – 2011

Trustworthiness standards (25 items)

1. Establish transparent process
2. Manage conflict of interest (COI)
3. Panel composition: balanced, multidisciplinary, including patients
4. Based on SR for each question
5. Clarify the “ingredients” for each recommendation
   • Summaries of benefits and harms
   • Quality of the evidence (or lack thereof)
   • Role of values and preferences
6. Articulation of the recommendation:
   • Clarity, strength, rationale
7. External review, patient involvement
8. Updating strategy
Failure of Clinical Practice Guidelines to Meet Institute of Medicine Standards


* Evaluation on 18 criteria (from 25) – N=130 guidelines

Lack of transparency

Financial COI
- 71% of guideline chairs
- 91% of co-chairs
Patients included – 15%

Table 1. Frequency of Adherence to Institute of Medicine Standards by Organization Type and Subspecialty Area

<table>
<thead>
<tr>
<th>Organization Type (No. of Guidelines)</th>
<th>Standards Met, Median</th>
<th>Guidelines Meeting &gt;50% of Standards, No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (114)</td>
<td>8 (44.0)</td>
<td>56 (49.1)</td>
</tr>
<tr>
<td>United States (68)</td>
<td>8 (44.0)</td>
<td>34 (50.0)</td>
</tr>
<tr>
<td>Non-US (46)</td>
<td>9 (50.0)</td>
<td>22 (47.8)</td>
</tr>
<tr>
<td>US government agency (15)</td>
<td>9 (50.0)</td>
<td>10 (66.7)</td>
</tr>
<tr>
<td>Subspecialty societies (41)</td>
<td>8 (44.0)(^a)</td>
<td>16 (39.0)(^b)</td>
</tr>
<tr>
<td>Subspecialty area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infectious diseases (21)</td>
<td>9 (50.0)</td>
<td>11 (52.4)</td>
</tr>
<tr>
<td>Oncology (17)</td>
<td>9.5 (52.8)</td>
<td>9 (52.9)</td>
</tr>
<tr>
<td>OB/GYN (12)</td>
<td>8 (44.0)</td>
<td>3 (25.0)</td>
</tr>
<tr>
<td>All other (64)</td>
<td>8 (44.0)</td>
<td>36 (56.2)(^c)</td>
</tr>
</tbody>
</table>
New BMJ collaboration accelerates evidence into practice to answer the questions that matter quickly and transparently through trustworthy recommendations.

http://www.bmj.com/rapid-recommendations
MAGIC & RapidRec: A wonderful collaboration

Per Olav Vandvik
Head of MAGIC

Linn Brandt
Thomas Agoritsas
Gordon Guyatt
Reed Siemieniuk
Lyubov Lytvyn
Anja Fog Heen

Frankie Achille
Deno Vichas
Frankie Achille
Annette Kristiansen
Christopher Berntzen
Romina Brignardello
Alfonso Iorio

Sophie Cook

The BMJ

Fiona Godlee
Helen Macdonald
Sophie Cook
Elizabeth Loder
Duncan Jarvies
Will Stahl-Timmins
BMJ RapidRecs – 90 days objective

Day 45: Network
Submit updated
Synthesize evidence
Systematic reviews

Day 90: Updated recommendation
Disseminate evidence to clinicians
Trustworthy guidelines

Day 90: Available for SDM
Disseminate evidence to patients
Decision aids for the clinical encounter

Evaluate and improve practice
Recording practice & population-based data
EMR, Registries, Quality indicators, Shared decisions

Day 90: Available at point of care
Implement evidence
Personalized decision support in the EMR
Gather the panel

- Patients
- Clinicians
  - General (GP, Family docs, pediatricians)
  - Experts
- Methodologists
  - EBM
  - SDM
Management of conflict of interest

- Financial COI: excluded
- Intellectual COI: balanced
- Methods editor
- Approval by both RapidRec executive & BMJ executive
Patients (citizens) involvement

- No COI
- Gets individual training and support
- Recruitment through:
  - Citizens United for Evidence
  - Society for Participatory Medicine
  - Cochrane Consumers/Task Exchange
  - Relevant organizations (e.g. International Community of Women living with HIV)
  - Twitter
  - Referrals

- Each RapidRecs: 3-5 patients per panel
- Chair invites them to talk first at each round
Systematic review(s) teams

- Semi-independent
- Panel input (incl. Patient) before start and in the end.
- 1 to 3 reviews per RapidRec, on
  - Treatment benefits & harms
  - Baseline risk
  - Values en preferences
  - Minimally important difference
1. Close balance
   - Ø Close call between benefits
   - Ø Therefore more preference-sensitive

2. Lower certainty in estimates

3. Patients values & preferences:
   - Ø choice varies appreciably (or is very uncertain)

---

1. Clear balance
   - Ø benefits clearly outweigh risks/hassle/cost
   - Ø risk/hassle/cost clearly outweighs benefits

2. Sufficient certainty in estimates (high or moderate)

3. Patients values & preferences:
   - Ø almost all same choice

---

Strong recommendations
- Just do it

Weak recommendations
- Shared decision making

GRADE

Strong recommendations
- Just do it

Weak recommendations
- Shared decision making
## Strong recommendations

1. **Clear balance**
   - benefits clearly outweigh risks/hassle/cost
   - risk/hassle/cost clearly outweighs benefits

2. **Sufficient certainty in estimates** (high or moderate)

3. **Patients values & preferences:**
   - almost all **same** choice

## Weak recommendations

1. **Close balance**
   - Close call between benefits and risks/hassle/cost
   - Therefore more preference-sensitive

2. **Lower certainty in estimates**

3. **Patients values & preferences:**
   - choice **varies** appreciably (or is very uncertain)
Jonathan, 67 years old

- Just retired
- Hyperlipidemia, treated
- New shortness of breath
- Fainted twice during the last month while exercising

→ Severe aortic stenosis
Treatment options

TAVI
Transcatheter Aortic Valve Insertion

SAVR
Surgical Aortic Valve Replacement
Transcatheter versus surgical aortic valve replacement in patients with severe aortic stenosis at low and intermediate risk: systematic review and meta-analysis

Reed A Siemieniuk,1,2 Thomas Agoritsas,1,3 Veena Manja,1,4,5 Tahira Devji,1 Yaping Chang,1 Malgorzata M Bala,6 Lehana Thabane,1 Gordon H Guyatt1

ABSTRACT

OBJECTIVE

To examine the relative safety and effectiveness of transcatheter aortic valve implantation (TAVI) compared with surgical aortic valve replacement (SAVR) for aortic stenosis at low and intermediate risk.

METHODS

We conducted a systematic review and meta-analysis of randomized controlled trials comparing TAVI with SAVR in patients with symptomatic severe aortic stenosis. We used Grading of Recommendations Assessment, Development, and Evaluation (GRADE) to assess the quality of evidence in the primary comparison.

RESULTS

A total of 30 randomized controlled trials (16,153 participants) were included in the analysis. The relative risk of death at 5 years was 0.76 (95% CI 0.62 to 0.93) in the TAVI group compared with the SAVR group. The quality of evidence was moderate for mortality and low for other outcomes.

CONCLUSIONS

Transcatheter aortic valve implantation is a safe and effective alternative to surgical aortic valve replacement for patients with severe aortic stenosis at low and intermediate risk. Further research is needed to determine whether TAVI is cost-effective compared with SAVR.

Prognosis after surgical replacement with a bioprosthetic aortic valve in patients with severe symptomatic aortic stenosis: systematic review of observational studies

Farid Foroutan master student1,2, Gordon H Guyatt dis2 undergraduate student3,4,5, Eva Bann undergraduate student3,4,5, Sai Bhagra physician2, Daegan Sit medical student1, R Yaping Chang PhD student1, Tahira Devji PhD student1,2, Toni Schofield physician2, Reed A Siemieniuk professor1,2, Rodrigo Bagur associate professor2, Cathie Bentleigh associate professor3,4,5

1Department of Clinical Epidemiology and Biostatistics, McMaster University, 1280 Main Street West, Hamilton, Ontario, Canada; 2Division of General Internal Medicine, University of Toronto, Toronto, Ontario, Canada; 3Division of Cardiology, London Health Sciences Centre, London, Ontario, Canada; 4Division of Cardiology, University of Alberta, Edmonton, Alberta, Canada; 5Division of Cardiology, University of British Columbia, Vancouver, British Columbia, Canada; 6Division of Cardiology, University of Ottawa, Ottawa, Ontario, Canada

ABSTRACT

OBJECTIVE: To evaluate the long-term survival and adverse events in patients who undergo surgical bioprosthetic aortic valve replacement for severe symptomatic aortic stenosis.

METHODS: We conducted a systematic review of observational studies reporting on survival and adverse events after surgical bioprosthetic aortic valve replacement for severe symptomatic aortic stenosis. We used GRADE to assess the quality of evidence in the primary comparison.

RESULTS: A total of 15 observational studies (11,153 participants) were included in the analysis. The hazard ratio for all-cause mortality at 10 years was 1.02 (95% CI 0.96 to 1.08) in the bioprosthetic group compared with the control group. The quality of evidence was low for all-cause mortality.

CONCLUSIONS: Surgical bioprosthetic aortic valve replacement for severe symptomatic aortic stenosis is associated with similar long-term survival compared with control patients. Further research is needed to determine whether bioprosthetic valves are cost-effective compared with control treatments.

Open Access Patient values and preferences on transcatheter or surgical aortic valve replacement therapy for aortic stenosis: a systematic review

Lyubov Lytvyn,1 Gordon H Guyatt,2 Veena Manja,1,2,3,4 Reed A Siemieniuk,2,6 Yuan Zhang,2 Thomas Agoritsas,3,8 Per O Vandvik7,8

ABSTRACT

OBJECTIVE: To investigate patients’ values and preferences regarding aortic valve replacement therapy for aortic stenosis.


RESULTS: A total of 25 studies (22,725 participants) were included in the analysis. The median willingness to pay for a unit increase in quality-adjusted life years was $20,000 in the TAVI group compared with $25,000 in the surgical group. The quality of evidence was moderate for willingness to pay.

CONCLUSIONS: Patients have different values and preferences regarding aortic valve replacement therapy for aortic stenosis, and these differences should be considered when developing treatment guidelines.
Is the evidence applicable to our patient?
Transcatheter or surgical aortic valve replacement for patients with severe, symptomatic, aortic stenosis at low to intermediate surgical risk: a clinical practice guideline

BMJ 2016;354:i5085 doi:http://dx.doi.org/10.1136/bmj.i5085 (Published 28 September 2016)
Cite this as: BMJ 2016;354:i5085

Choice of intervention for those with severe aortic stenosis

- **Transfemoral TAVI**: Inserting a new valve into the aortic valve's place without open heart surgery. Delivery is through the femoral artery.
- **SAVR**: Open-heart surgery, to remove the narrowed aortic valve. Replacement with tissue valve.

### Recommendations

<table>
<thead>
<tr>
<th>Population</th>
<th>Favours TAVI</th>
<th>Favours SAVR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 85+</td>
<td>Strong</td>
<td></td>
</tr>
<tr>
<td>Age 75–84</td>
<td>Weak</td>
<td></td>
</tr>
<tr>
<td>Age 65–74</td>
<td>Weak</td>
<td></td>
</tr>
<tr>
<td>Age under 65</td>
<td>Strong</td>
<td></td>
</tr>
</tbody>
</table>

### Key uncertainties

The major uncertainty is the durability of TAVI valves which drives recommendations in favour of SAVR in younger patients.
### Age 65–74

#### Comparison of benefits and harms

<table>
<thead>
<tr>
<th>Event</th>
<th>Favor transfemoral TAVI</th>
<th>Favor SAVR</th>
<th>Quality of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Events per 1000 people—within 2 years</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deaths</td>
<td>73</td>
<td>19 fewer</td>
<td>92</td>
</tr>
<tr>
<td>Strokes</td>
<td>56</td>
<td>14 fewer</td>
<td>70</td>
</tr>
<tr>
<td>Aortic valve reinterventions</td>
<td>10</td>
<td>7 fewer</td>
<td>3</td>
</tr>
<tr>
<td>Pacemaker insertions</td>
<td>226</td>
<td>134 fewer</td>
<td>92</td>
</tr>
<tr>
<td>Life-threatening bleeds</td>
<td>161</td>
<td>252 fewer</td>
<td>413</td>
</tr>
<tr>
<td>New onset atrial fibrillation</td>
<td>134</td>
<td>178 fewer</td>
<td>312</td>
</tr>
<tr>
<td>Moderate/severe heart failure</td>
<td>87</td>
<td>18 fewer</td>
<td>69</td>
</tr>
</tbody>
</table>

| **Events per 1000 people—within 10 years** |                         |            |                     |
| Aortic valve reinterventions  | 198                      | 137 fewer  | 61                  |

| Length of hospital stay       |                         |            |                     |
| Median days in hospital       | 8                       | 4 fewer    | 12                  |

#### Preferences and values

People who wish to avoid open-heart surgery are likely to favour TAVI. People who place more value on avoiding a second aortic valve placement are likely to choose surgery.

#### Resourcing

TAVI is likely to be a cost-effective alternative to SAVR for patients at low to moderate perioperative risk, but we have not identified any cost-effectiveness analyses to support this.

#### Other

Only centres with sufficient expertise and an established TAVI team with experienced general and interventional cardiologists and cardiac surgeons should offer TAVI.
<table>
<thead>
<tr>
<th>Outcome</th>
<th>Study results and measurements</th>
<th>Absolute effect estimates</th>
<th>Certainty in effect estimates (Quality of evidence)</th>
<th>Plain text summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality, age adjusted</td>
<td>Hazard Ratio 0.79 (CI 95% 0.66 - 0.94) Based on data from 2576 patients in 3 studies Follow up: 2 years.</td>
<td>152 per 1000 122 per 1000</td>
<td>Moderate Due to serious imprecision</td>
<td>TAVI probably reduces the risk of death.</td>
</tr>
<tr>
<td>Stroke (includes perioperative events)</td>
<td>Relative risk 0.80 (CI 95% 0.63 - 1.01) Based on data from 2576 patients in 3 studies Follow up: 2 years.</td>
<td>99 per 1000 79 per 1000</td>
<td>Moderate Due to serious imprecision</td>
<td>TAVI probably reduces the risk of stroke.</td>
</tr>
<tr>
<td>Life threatening bleeding</td>
<td>Relative risk 0.39 (CI 95% 0.29 - 0.54) Based on data from 2576 patients in 3 studies Follow up: 2 years.</td>
<td>413 per 1000 161 per 1000</td>
<td>High</td>
<td>TAVI reduces the risk of life threatening or disabling bleeding.</td>
</tr>
<tr>
<td>Aortic valve reintervention short term</td>
<td>Relative risk 3.25 (CI 95% 1.29 - 8.14) Based on data from 3058 patients in 3 studies Follow up: 2 years.</td>
<td>3 per 1000 10 per 1000</td>
<td>Moderate Due to borderline risk of bias and imprecision</td>
<td>TAVI probably increases the risk of aortic valve reintervention.</td>
</tr>
<tr>
<td>Aortic valve reintervention - long term</td>
<td>Relative risk 3.25 (CI 95% 1.29 - 8.14) Based on data from 3058 patients in 3 studies Follow up: 2 years.</td>
<td>61 per 1000 198 per 1000</td>
<td>Very Low Due to serious inconsistency, indirectness, imprecision</td>
<td>TAVI may increase need for aortic reintervention due to structural valve deterioration</td>
</tr>
</tbody>
</table>
Weak recommendation in favour of surgery instead of TAVI?

What would you do in his place?
Evidence dissemination to patients

Evidence

Clinicians

Patients

Patient Decision Aids

Consultation Decision Aids

@ThomasAgoritsas
Shared Decision Making is a process by which a patient and a clinician work together, have a conversation, partner with each other to identify the best course of action, the best treatment or test at this point in time.

It is about sharing what matters. Clinicians share information about the alternatives, benefits, harms. Patients share prior experience, goals, expectations, values.
What one wants to see is...

Clinician and patient discuss the “What You Should Know” card.

Clinician asks, “What issues concerning a medication to treat depression symptoms would you like to discuss first?” Patient selects first card.

Patient and clinician review this card.

Patient selects a second card and compares the two.

Medication options are discussed.

Medication choice is made—brochure given to patient to take home.
**Blood Sugar**

- **Metformin**: 1 - 2%
- **Insulin**: Unlimited%
- **Pioglitazone**: 1%
- **Liraglutide/Exenatide**: 0.5% - 1%
- **Sulfonylureas**: 1 - 2%
- **Gliptins**: 0.5 - 1%

**Daily Routine**

- **Metformin**
  - AM
  - PM

- **Insulin**
  - 24 hours
  - AM PM

- **Pioglitazone**
  - 24 hours

- **Liraglutide/Exenatide**
  - 24 hours
  - Weekly
  - AM PM
  - Take in the hour before meals.

- **Sulfonylureas**
  - 24 hours
  - AM PM

- **Gliptins**
  - 24 hours

**Weight Change**

- **Metformin**: None
- **Insulin**: None
  - 4 to 6 lb. gain
- **Pioglitazone**: More than 2 to 6 lb. gain
- **Liraglutide/Exenatide**: 3 to 6 lb. loss
- **Sulfonylureas**: None
  - 2 to 3 lb. gain
- **Gliptins**: None

*Caution: This application is for use exclusively during the clinical encounter with your clinician.*
MAGIC app
Guideline authoring and publication platform

New evidence
Dynamic updating

Database
Structured and tagged content

Multilayered formats
For all devices

Integration in the EMR

Decision aids
For patients and clinicians

Adaptation
National and local or EBM textbooks

SHARE-IT

Agoritsas T et al. Decision aids that really promote shared decision making: the pace quickens. BMJ 2015
Patients aged 65 to < 75 years and eligible for transfemoral TAVI or SAVR

Quality of evidence

For transfemoral TAVI versus SAVR, high certainty for decrease in acute kidney injury, bleeding, atrial fibrillation, and hospital length of stay; moderate certainty for decrease in mortality, stroke, recovery time and increase in short-term survival.
SHARE-IT Decision Aids

What aspect of your treatment would you like to discuss next?

- Death
- Stroke
- Valve reintervention (short term)
- Valve reintervention (long term)
- Pacemaker insertion
- Life threatening bleeds
- Atrial fibrillation
- Heart failure symptoms
- Days in hospital
- Practical issues
Valve reintervention (long term)

Among a 1000 patients like you, with Transfemoral TAVI

137 more 10 years

SAVR

61 per 1000

Transfemoral TAVI

198 per 1000

Certainty

Very Low

939
## Valve reintervention (long term)

Among a 1000 patients like you, with Transfemoral TAVI

<table>
<thead>
<tr>
<th></th>
<th>SAVR</th>
<th>Transfemoral TAVI</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>198</td>
<td></td>
</tr>
<tr>
<td>per 1000</td>
<td>per 1000</td>
<td></td>
</tr>
</tbody>
</table>

Certainty: 📳 cuddle 📳 📳 📳

VERY LOW
Valve reintervention (long term)
Among a 1000 patients like you, with Transfemoral TAVI

137 more
10 years

SAVR | Transfemoral TAVI
---|---
61 per 1000 | 198 per 1000

Certainty

VERY LOW
SHARE-IT Decision Aids

Among a 1000 patients like you, on average with Transfemoral TAVI

<table>
<thead>
<tr>
<th>Event</th>
<th>SAVR</th>
<th>Transfemoral TAVI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Death</td>
<td>92/1000</td>
<td>73/1000</td>
</tr>
<tr>
<td>Certainty</td>
<td>MODERATE</td>
<td></td>
</tr>
<tr>
<td>Valve reintervention (long term)</td>
<td>61/1000</td>
<td>198/1000</td>
</tr>
<tr>
<td>Certainty</td>
<td>VERY LOW</td>
<td></td>
</tr>
<tr>
<td>Pacemaker insertion</td>
<td>92/1000</td>
<td>226/1000</td>
</tr>
<tr>
<td>Certainty</td>
<td>MODERATE</td>
<td></td>
</tr>
</tbody>
</table>

- **Death**: 19 fewer (2 years)
- **Valve reintervention (long term)**: 137 more (10 years)
- **Pacemaker insertion**: 134 more (2 years)
Among a 1000 patients like you, on average with Transfemoral TAVI

**Heart failure symptoms**

- 18 more
  - 2 years

<table>
<thead>
<tr>
<th></th>
<th>SAVR</th>
<th>Transfemoral TAVI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>69</strong></td>
<td></td>
<td><strong>87</strong></td>
</tr>
<tr>
<td>per 1000</td>
<td></td>
<td>per 1000</td>
</tr>
</tbody>
</table>

**Certainty**

- **Moderate**

**Days in hospital**

- 4 fewer
  - days

<table>
<thead>
<tr>
<th></th>
<th>SAVR</th>
<th>Transfemoral TAVI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>12</strong></td>
<td></td>
<td><strong>8</strong></td>
</tr>
<tr>
<td>days</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Certainty**

- **High**

---

**Death**

**Stroke**

**Valve reintervention (short term)**

**Valve reintervention (long term)**

**Pacemaker insertion**

**Life threatening bleeds**

**Atrial fibrillation**

**Practical issues**
SHARE-IT Decision Aids

Practical issues

- Medication routine
- Tests and visits
- Procedure and device
- Recovery and adaptation
- Coordination of care
- Adverse effects, interactions and antidote
- Physical well-being
- Emotional well-being
- Pregnancy and nursing
- Costs and access
- Food and drinks
- Exercise and activities
- Social life and relationships
- Work and education
- Travel and driving
Recovery and adaptation

with Transfemoral TAVI
- After the procedure, in-hospital stay will usually last 2-5 days
- It could take about a month to recover
- Pain from the insertion site usually resolves within a few weeks

with SAVR
- After the procedure, in-hospital stay will usually last 5-10 days
- It could take about 2-3 months to recover
- About 1 patient in 4 report persisting pain in the sternum at after 1 year, with 1 in 10 with more serious pain
Health Professionals

Patients' experiences shared on film.

Related:
- Using healthtalk.org for training
- Trigger films for service improvement
- Patients tell us what makes good healthcare

"It gives us a unique look at what it's like to be on the receiving end."

A problem shared

Reliable health information from patients, for patients.
# Decision Aid

Our Decision Aids are designed to help you discuss treatment options with your physician, and choose the option that works best for you. These tools were developed with the help of patients and clinicians facing real-life decisions together. All information displayed is gathered from current best research, and reviewed by experts in the field. This document is a printable take-home version of the decision aid. It summarizes the benefits and harms as well as practical issues that could matter to you when considering each available option. Take the time to go through this information, and perhaps discuss it with your close ones. Don’t forget to note your impressions and discuss them with your physician during your next appointment.

## Transfemoral TAVI vs SAVR

### Emotional well-being

- Transfemoral TAVI: Data on emotional well-being after TAVI is scant

### Costs and access

- **Both**
  - Travel costs if intervention happens far from home
  - Insurance plans may or may not cover some or all aspects of the procedure

<table>
<thead>
<tr>
<th>Food and drinks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transfemoral TAVI</strong></td>
</tr>
<tr>
<td>- Dietary restrictions apply if blood thinners are needed</td>
</tr>
<tr>
<td><strong>SAVR</strong></td>
</tr>
<tr>
<td>- Dietary restrictions apply if blood thinners are needed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exercise and activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Both</strong></td>
</tr>
<tr>
<td>- Need to avoid strenuous activity during recovery</td>
</tr>
<tr>
<td>- Rehabilitation may help recovery</td>
</tr>
<tr>
<td>- If blood thinners are needed, may limit activities with high risk injury</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Work and education</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transfemoral TAVI</strong></td>
</tr>
<tr>
<td>- May be 2-4 weeks</td>
</tr>
<tr>
<td><strong>SAVR</strong></td>
</tr>
<tr>
<td>- May be 6-8 weeks</td>
</tr>
</tbody>
</table>

### This tool is addressing the following choices

- Transfemoral TAVI vs SAVR

### This decision can impact on the following issues (as detailed below)

- Death
- Valve reintervention (short term)
- Valve replacement (long term)
- Stroke
- Valve reintervention (long term)
- Life threatening events
- Atrial fibrillation
- Heart failure
- Practical impact
- Days in hospital
- Explore in the next pages how these issues impact on the issues that matter to you.
Guidelines & SDM together
Is harmony possible?

EBHC
Promote evidence-informed choice
Whatever the evidence, value and preference judgments are central in every decision

SDM
Result in CARE that each patient values

@ThomasAgoritsas
### Strength of the recommendations

**The example of UpToDate (n=9451)**

<table>
<thead>
<tr>
<th></th>
<th>Weak Recommendations</th>
<th>Strong Recommendations</th>
<th>All Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td><strong>Low confidence</strong></td>
<td>4335 (66.7%)</td>
<td>366 (12.4%)</td>
<td>4701 (49.7%)</td>
</tr>
<tr>
<td><strong>Moderate confidence</strong></td>
<td>2019 (31.1%)</td>
<td>1740 (59.0%)</td>
<td>3759 (39.8%)</td>
</tr>
<tr>
<td><strong>High confidence</strong></td>
<td>147 (2.3%)</td>
<td>844 (28.6%)</td>
<td>991 (10.5%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6501</strong></td>
<td><strong>2950</strong></td>
<td><strong>9451</strong></td>
</tr>
</tbody>
</table>

(68.8% of all rec) (31.2% of all rec) (100%)

Agoritsas, Merglen, Heen et al. *UpToDate adherence to GRADE criteria for strong recommendations: an analytical survey.* BMJ Open. 2017
Figure 1: Number of chronic health conditions by level of decile

Figure 4: Selected comorbidities in people with four common, important disorders in the most affluent and most deprived deciles

COPD = chronic obstructive pulmonary disease. TIA = transient ischaemic attack.
Conclusion

- 7 RapidRecs produced in 2 ans (april 2016)
- 6 more RapidRec in preparation en 2018
- Positive feedback & collaborations

Future

- Evaluate process & Standardize methodology
- Sustainability & Scaling up
- Integration into Evidence Ecosystem & Implementation

Thank you!

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@ThomasAgoritsas