

# From evidence to action

## *Sharing decisions with patients*



Reproduced from cover page of JAMA, Users' Guide to the Medical Literature, 3<sup>rd</sup> ed.

**Thomas Agoritsas, MD, PhD**

*Médecin adjoint agrégé  
Division of General Internal Medicine,  
Department of Internal Medicine*

*Prof assistant, McMaster University*

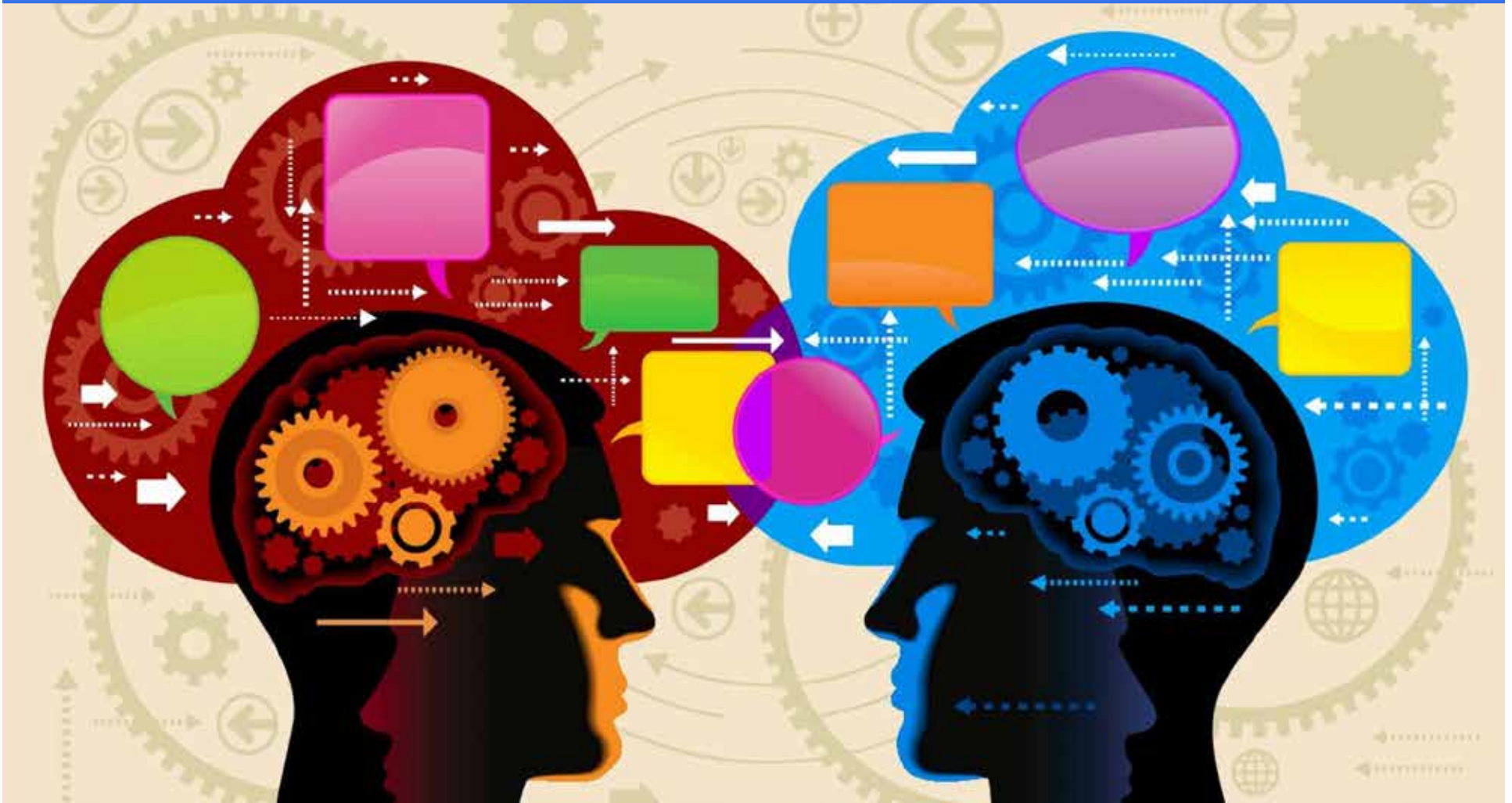
# Disclosures

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

## **My intellectual conflicts of interests:**

- Member of the **GRADE** Working Group
- Board member **MAGIC** Foundation
- Co-founded and steering the **BMJ Rapid Recs**
- Deputy editor ACP journal club – McMaster PLUS Evidence Alerts

# What is shared decision making?



When? When not? How? How much?

## Patient centered care



## Personalized medicine

## Shared decision making



Barry et al. Shared decision making - pinnacle of patient-centered care. *NEJM* 2012;366:780-1.

Stiggelbout et al. Shared decision making: really putting patients at the centre of healthcare. *BMJ* 2012;344:e256.

Djulgovic B et al. Evidence-based practice is not synonymous with delivery of uniform health care. *JAMA* 2014;312:1293-4.

**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**

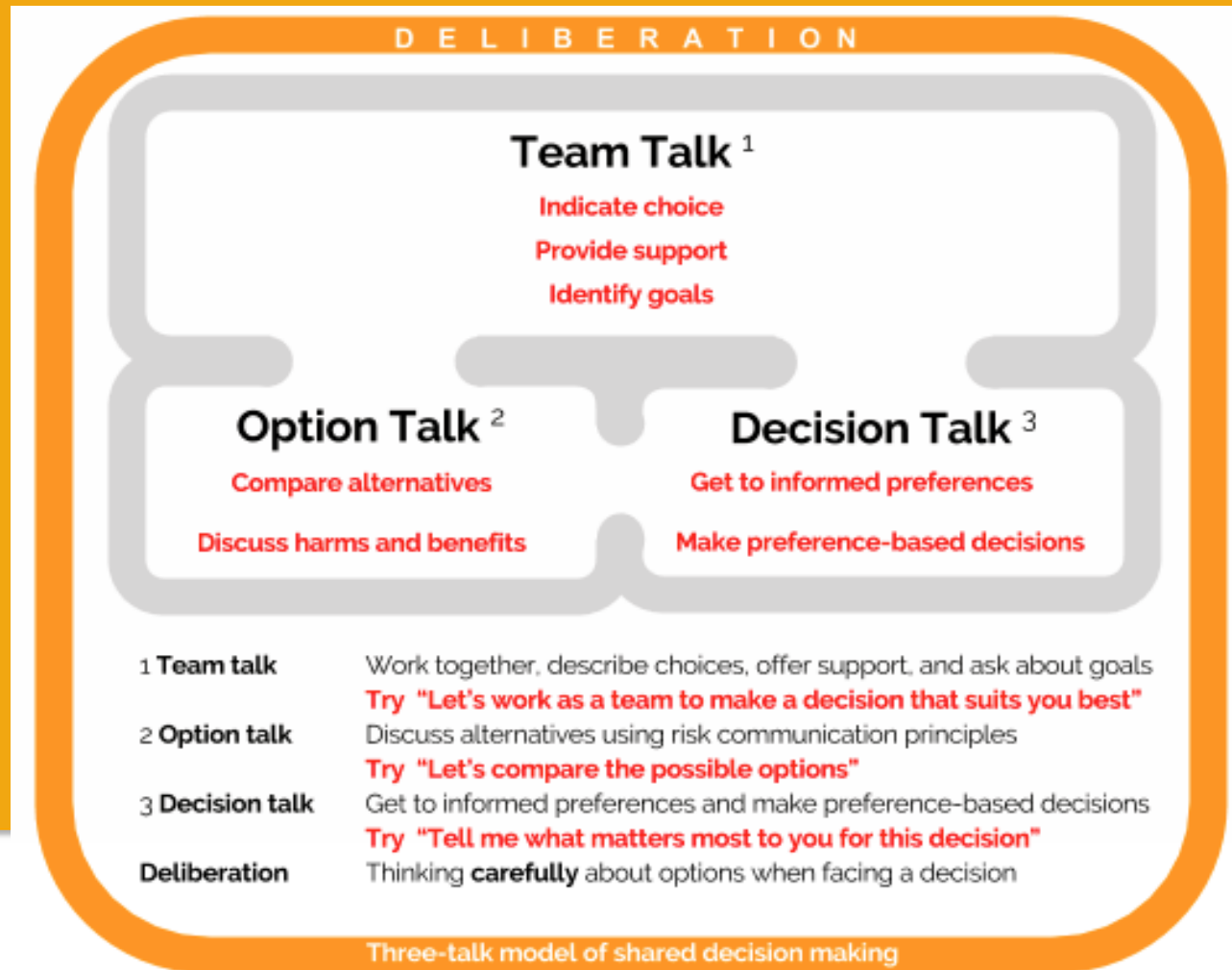
Clinicians share information about the alternatives, benefits, harms

Patients share prior experience, goals, expectations, values.

*Victor Montori*



# Collaborative Deliberation



Elwyn G et al. *Shared decision making: a model for clinical practice.*  
*J Gen Intern Med.* 2012 Oct;27(10):1361-7.

# SDM: Common beliefs and objections

- "Patients do not really want it"
  - 70-90% prefer SDM (European survey on >8000 patients)
  - Time trend (they were 50% before year 2000)
  - >50% unsatisfied with information given and implication
- "Clinical encounters would take more time"
  - No systematic increase (3 systematic reviews)
- "Too complicated for patients, many (most) are not capable"
  - Several studies among vulnerable, sick or with low literacy
  - Less a question of if.. but rather how...
- "We are already doing it ! "
  - Not quite... "perception-reality gap"
  - Average of 23/100 on OPTION scale (33 international studies)

# Clinical practice is made of a myriad of decisions

## Need for SDM ?

- When should I consult? [Patient]
- When should we admit/discharge this patient? [Physician]
- When should I call the resident? [Nurse]
- Which diagnostic test to perform/offer?
- What should we screen for and when?
- **What are the reasonable options for therapy?**
- What type/frequency of follow-up?
- What are the practical aspects to put in place in one's daily life?

+ many therapeutic interactions that are not decisions

→ Potential field of knowledge



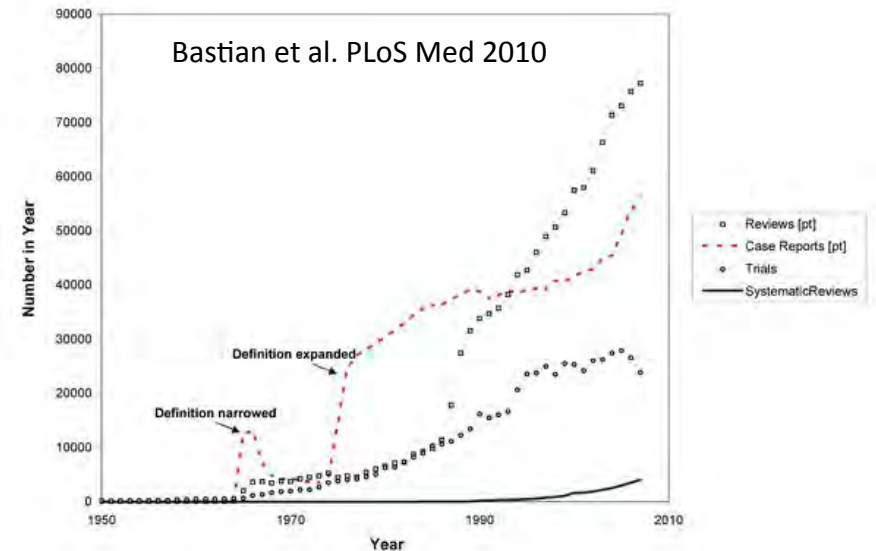


# Volume of health evidence every day

## ➤ 3000-4000 publications

- 100 Randomized trials
- 20 systematic reviews

Retrieving the evidence  
Signal vs. Noise ?



Staying up-to-date ?



- **Agoritsas** et al. Increasing the quantity and quality of searching for current best evidence to answer clinical questions. *Implement Sci* 2014;9:125.
- **Agoritsas** et al. Sensitivity and predictive value of 15 PubMed search strategies to answer clinical questions rated against full systematic reviews. *J Med Internet Res* 2012;14:e85.
- **Agoritsas** et al. Finding Current Best Evidence, in *JAMA Users' Guides to the Medical Literature*. McGraw-Hill Medical, 2015.

# Clinical practice guidelines: The good, the bad and the ugly

## ORIGINAL INVESTIGATION

ONLINE FIRST | HEALTH CARE REFORM

### Failure of Clinical Practice Guidelines to Meet Institute of Medicine Standards

*Two More Decades of Little, If Any, Progress*

Justin Kung, MD; Ram R. Miller, MD; Philip A. Mackowiak, MD

**Background:** In March 2011, the Institute of Medicine (IOM) issued a new set of standards for clinical practice guidelines intended to enhance the quality of guidelines being produced. To our knowledge, no systematic view of adherence to such standards has been undertaken since one published over a decade ago.

**Methods:** Two reviewers independently screened 130 guidelines selected at random from the National Guideline Clearinghouse (NGC) website for compliance with 18 of 25 IOM standards.

**Results:** The overall median number (percentage) of IOM standards satisfied (out of 18) was 8 (44.4%), with an interquartile range of 6.5 (36.1%) to 9.5 (52.8%). Fewer than half of the guidelines surveyed met more than 50% of the IOM standards. Barely a third of the guidelines produced by subspecialty societies satisfied more than 50% of the IOM standards surveyed. Information on conflicts of interest (COIs) was given in fewer than half of the guidelines surveyed. Of those guidelines including such information, COIs were present in over two-thirds of committee chairpersons (71.4%) and 90.5% of co-

## INVITED COMMENTARY

ONLINE FIRST

### In Guidelines We Cannot Trust

The Institute of Medicine (IOM) recently updated its standards for guideline development.<sup>1</sup> If adhered to, trustworthy guidelines should follow. Trustworthiness connotes integrity, dependability, and reliability. Unfortunately, in guidelines we cannot trust.

In the late 1990s, 2 colleagues and I critically appraised a broad set of published guidelines and found that guidelines adhered to less than half of the methodological standards for guideline development.<sup>2</sup> We opined that since the guideline industry was in its infancy, over time developers would adhere to recommended standards of guideline development. As demonstrated by Kung et al<sup>3</sup> in this issue of the Archives, guidelines are still not following guidelines.

Kung et al<sup>3</sup> scrutinized 114 guidelines published in the National Guidelines Clearinghouse against 18 of the standards recently set forth by the IOM.<sup>1</sup> Despite some methodological shortcomings, Kung et al<sup>3</sup> found that the overall percentage of standards satisfied was only 8 of 18 (44.4%).

While I laud this ideal we have little evidence regarding the impact on guideline quality and the resulting recommendations by policies prohibiting relations with industry, and there is the potential cost of the loss of subject expertise on guideline panels. Disclosure alone is insufficient to protect against COIs. I favor an approach championed by the American College of Chest Physicians' Antithrombotic Guidelines,<sup>4</sup> which panel members with significant COIs do not participate in discussions or voting on recommendations which they have COIs but may offer written input so that clinical and research expertise is maintained.<sup>5</sup>

A closely related topic that limits guideline trustworthiness is the often single subspecialty panel composition. Members of a clinical specialty serve to recommend interventions for which their specialty serves. One needs to look no further than prostate cancer guidelines for evidence of this. Groups with multidisciplinary membership tend to develop more recommendations that are not evidence based.<sup>6</sup> Guideline development is complex, as is patient care. Excellence in both clinical and nonclinical disciplines

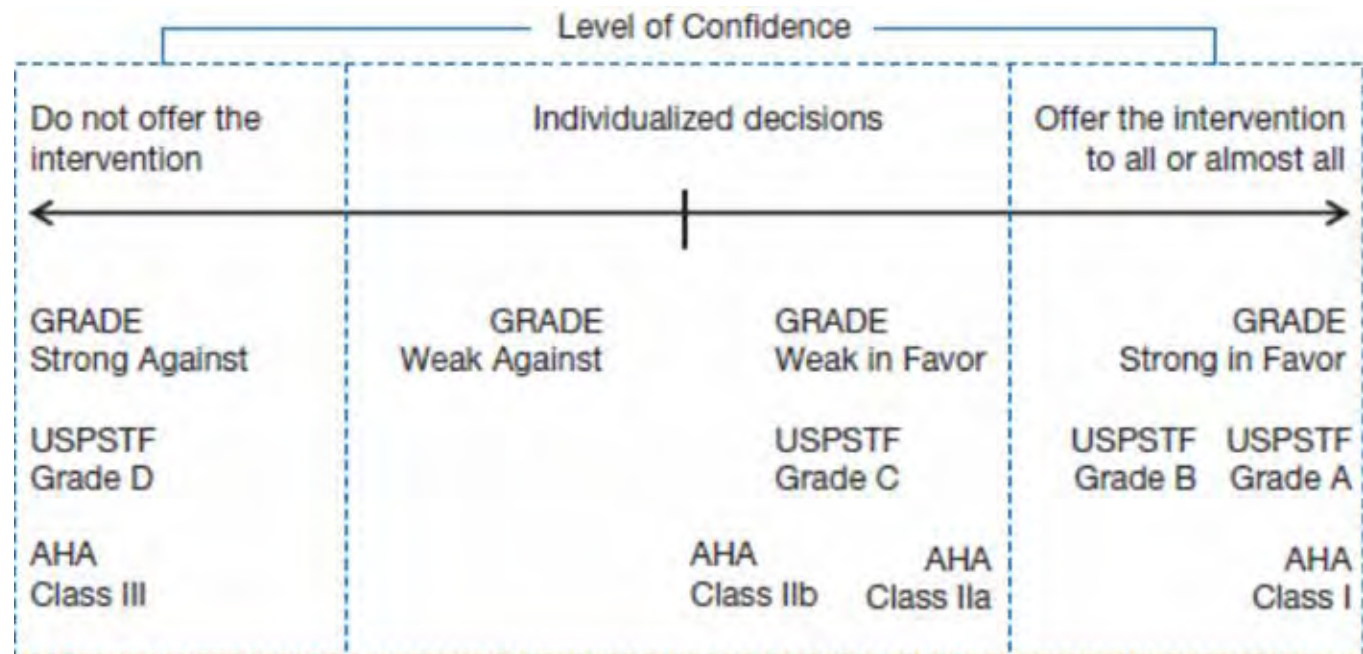
# Niveau d'évidence & recommandations???

From: How to Use a Patient Management Recommendation: Clinical Practice Guidelines and Decision Analyses  
Users' Guides to the Medical Literature, 2014

**Class Ia?**

**Grade A**

**Class IIIb?**



## Legend:

Direction and Strength of Recommendations in Different Grading Systems

Abbreviations: AHA, American Heart Association; GRADE, Grading of Recommendations Assessment, Development and Evaluation; USPSTF, US Preventive Services Task Force.



<http://www.gradeworkinggroup.org/index.htm>

## ANALYSIS

**GRADE**

### RATING QUALITY OF EVIDENCE AND STRENGTH OF RECOMMENDATIONS

# GRADE: an emerging consensus on rating quality of evidence and strength of recommendations

Guidelines are inconsistent in how they rate the quality of evidence and the strength of recommendations. This article explores the advantages of the GRADE system, which is increasingly being adopted by organisations worldwide

Guideline developers around the world are inconsistent in how they rate quality of evidence and grade strength of recommendations. As a result, guideline users face challenges in understanding the messages that grading systems try to communicate. Since 2006 the *BMJ* has requested in its "Instructions for Authors" on bmj.com that authors should use the Grading of Recommendations Assessment and Evaluation (GRADE) system when submitting a clinical guidelines article. What was behind this decision?



Gordon H Guyatt professor,  
Department of Clinical  
Epidemiology and Biostatistics,  
McMaster University, Hamilton,  
ON, Canada L8N 3Z5  
Andrew D Oxman researcher,

advantages and disadvantages but also by their confidence in these estimates. The cartoon depicting the weather forecaster's uncertainty captures the difference between an assessment of the likelihood of an outcome and the confidence in that assessment (figure). The use of intervention that estimate. as offering recommendations have often erred as a result of not taking sufficient account of the quality of evidence.<sup>2</sup> For a decade, organisations recommended

→ BMJ 2004, BMJ 2008, JCE 2010-present  
→ continued evolution



# GRADE

## 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)



# GRADE

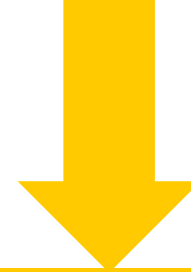
***Strong recommendations***



***Just do it***



***Weak recommendations***



***Shared  
decision making***





# Most important decisions in health care are not clear cut

## Strength of recommendations in UpToDate (n=9451)

	All Recommendations
	N (%)
Low confidence	4701 (49.7%)
Moderate confidence	3759 (39.8%)
High confidence	991 (10.5%)
Total	9451 (100%)


# Most important decisions in health care are not clear cut

## Strength of recommendations in UpToDate (n=9451)


	Weak Recommendations	Strong Recommendations	All Recommendations
	N (%)	N (%)	N (%)
Low confidence	4335 (66.7%)	366 (12.4%)	4701 (49.7%)
Moderate confidence	2019 (31.1%)	1740 (59.0%)	3759 (39.8%)
High confidence	147 (2.3%)	844 (28.6%)	991 (10.5%)
<b>Total</b>	<b>6501</b> <b>(68.8% of all rec)</b>	<b>2950</b> <b>(31.2% of all rec)</b>	<b>9451</b> <b>(100%)</b>

# Most important decisions in health care are not clear cut

## Strength of recommendations in UpToDate (n=9451)



Weak Recommendations	Strong Recommendations	All Recommendations
N (%)	N (%)	N (%)
4335 (66.7%)	366 (12.4%)	4701 (49.7%)
2019 (31.1%)	1740 (59.0%)	3759 (39.8%)
147 (2.3%)	844 (28.6%)	991 (10.5%)
<b>6501</b>	<b>2950</b>	<b>9451</b>
<b>(68.8% of all rec)</b>	<b>(31.2% of all rec)</b>	<b>(100%)</b>





VIEWPOINT

## Evidence-Based Practice Is Not Synonymous With Delivery of Uniform Health Care

**Benjamin Djulbegovic, MD, PhD**

Division of Evidence-Based Medicine, Department of Internal Medicine, Morsani College of Medicine, University of South Florida, Tampa; and H. Lee Moffitt Cancer Center and Research Institute, Tampa, Florida.

**Gordon H. Guyatt, MD, MSc**

Department of Clinical Epidemiology, McMaster University, Hamilton, Ontario, Canada.

**Current clinical practice** is characterized by substantial variation in delivery of health care for the same conditions.<sup>1</sup> In turn, clinical variation is considered one of the major drivers of ever-increasing health care costs<sup>1</sup> contributing to the estimated 30% of inappropriate or wasteful health care.<sup>2</sup> Perhaps as a natural response to this unsatisfactory situation, a widespread and influential school of thought has emerged contending that greater uniformity of clinical practice is desirable.<sup>1,3</sup> Advocates maintain that by achieving uniformity in care, practice variation can be decreased, in turn leading to large cost reductions. **The suggested mechanism to achieve uniformity in part involves clinician adherence to practice guidelines, which is seen as synonymous with evidence-based practice.<sup>3</sup> In this Viewpoint, we explain that this position is based on a misunderstanding of trustworthy guidelines<sup>4</sup> and that striving for uniformity of practice as an end is misguided.**

The first limitation in the drive for uniformity is a failure to appreciate the need for guidelines that achieve a

terms of benefits, harms, and costs.<sup>6</sup> Studies directly addressing the relevant questions may not have been undertaken, or if they have, they may be small, poorly designed or implemented, show inconsistent results, be limited by publication bias, or have enrolled idiosyncratic populations of questionable applicability. In these cases, the confidence in the estimate of effects will often be low or very low. In addition, if values and preferences differ widely across patients (which is often if not uniformly the case), the right decision for one patient may be the wrong decision for another. For example, Montori et al<sup>7</sup> illustrated how recent guidelines by the American College of Cardiology and the American Heart Association for the use of statins for primary prevention of heart disease do not mandate uniform practice—some patients informed about cardiovascular disease risk reduction will choose the recommended course of action and use statins, but others will not.

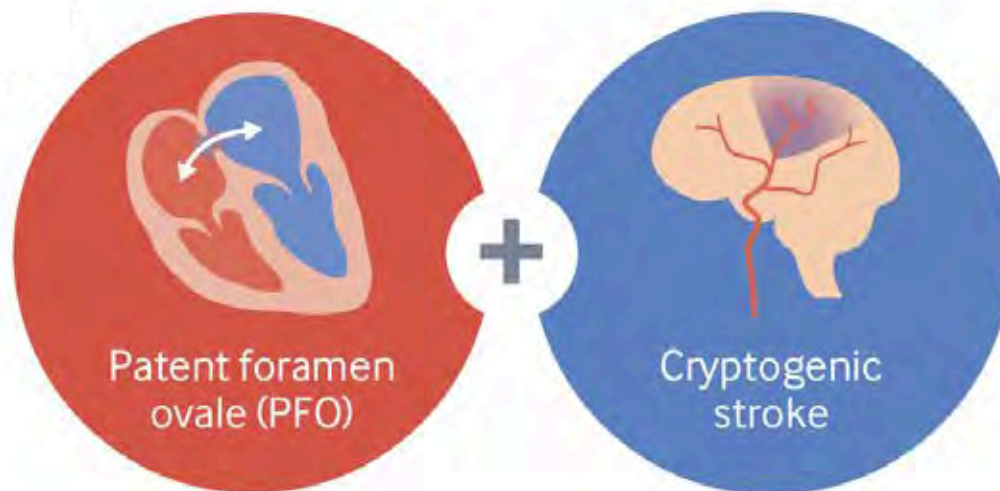
Organizations that produce guidelines should distinguish between situations in which confidence in





# John, 60 years old

- Teacher secondary school, considering early retirement
- Treated for hypertension
- Minor stroke (NIHSS 3)
  - No persistent disabling neurological deficit
  - Patent Foramen Ovale (PFO)
  - Cryptogenic



No atrial fibrillation  
No aortic disease  
No left sided heart disease  
No cerebrovascular disease

# What does John and his doctors need to make a decision about what to do next?

Options ?  
The menu



Benefits and harms

The Balance 

Certainty

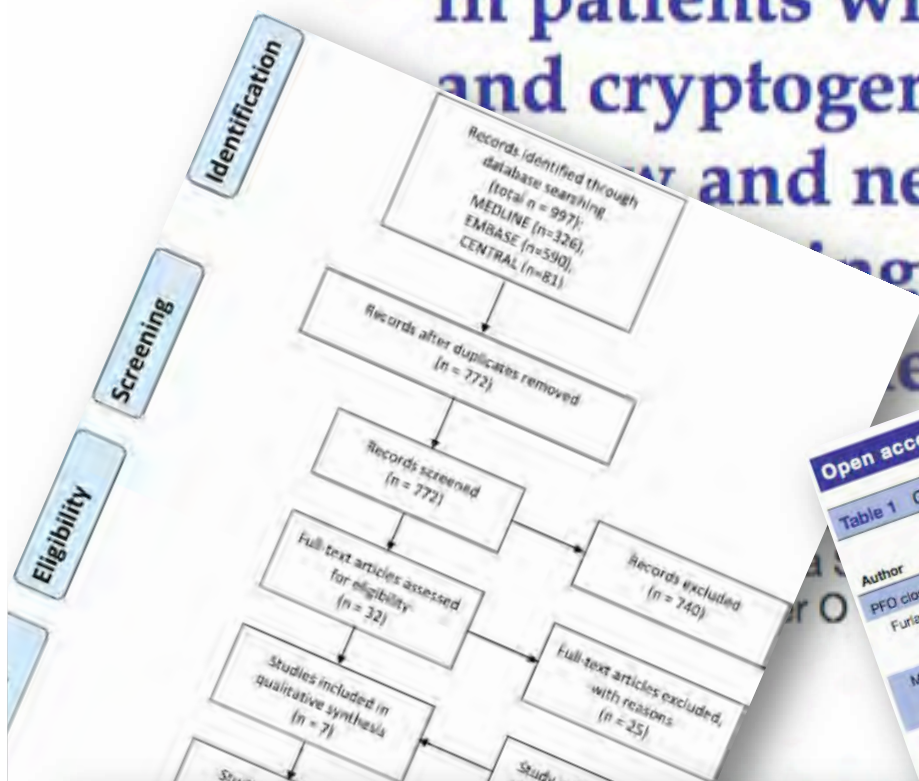
In the evidence 

Practical Issues





# BMJ Open Patent foramen ovale closure, antiplatelet therapy or anticoagulation in patients with patent foramen ovale and cryptogenic stroke: a systematic review and network meta-analysis



CLOSURE I	+	+	?	?	-	+	+
PC Trial	+	+	?	+	-	+	+
RESPECT	?	-	?	+	-	+	+

## Open access

Table 1 Characteristics of patients in eligible studies

Author	n randomised	Mean age	% Male	Inclusion criteria	Moderate or higher shunt (%)†	Atrial septal aneurysm >10 mm (%)†	Most common device used for closure
PFO closure plus antiplatelet vs antiplatelet therapy		46.0	51.8	Cryptogenic stroke, PFO, >18 years and <60 years	52.8‡	37.8	STARFlex 100%
Furlan (CLOSURE 1, 2012)	909	43.4	59.0	Cryptogenic stroke, PFO, >18 years and <60 years	92.5§	31.8	Amplatzer 52%¶
Mas (CLOSE, 2017)		49.8		Cryptogenic stroke, PFO, >18 years and <60 years	65.6**	23.7††	Amplatzer 100%
Meier (PC Trial, 2013)				Cryptogenic stroke, PFO, >18 years and <60 years	48.8††	35.7***	Cardioform 61%‡‡
Saver (RESPECT, 2017)				Cryptogenic stroke, PFO, >18 years and <60 years	NR for AP group		Amplatzer 100%
Sondergaard (PFO closure, 2017)				Cryptogenic stroke, PFO, >18 years and <60 years			Amplatzer 100%
Lee (DEFENSE, 2017)				Cryptogenic stroke, PFO, >18 years and <60 years			Amplatzer 100%
Anticoagulation vs antiplatelet therapy	203 (88 with cryptogenic stroke)	44.2	57.0	Cryptogenic stroke, PFO, >18 years and <60 years	61.4	63.6	Amplatzer 100%
Homma (PICSS, 2002)	361			Cryptogenic stroke, PFO, >18 years and <60 years			Amplatzer 100%
Mas (CLOSE, 2017)				Cryptogenic stroke, PFO, >18 years and <60 years			Amplatzer 100%

Risk Ratio

Random, 95% CI

0.87 [0.40, 1.87]

0.20 [0.02, 1.65]

0.49 [0.22, 1.11]

0.61 [0.34, 1.07]

Risk Ratio

M-H, Random, 95% CI

0.01 0.1 1 10 100

Favours [experimental] Favours [control]

## Risk Ratio

Random, 95% CI

0.87 [0.40, 1.87]

0.20 [0.02, 1.65]

0.49 [0.22, 1.11]

0.61 [0.34, 1.07]

## Risk Ratio

M-H, Random, 95% CI

0.01 0.1 1 10 100

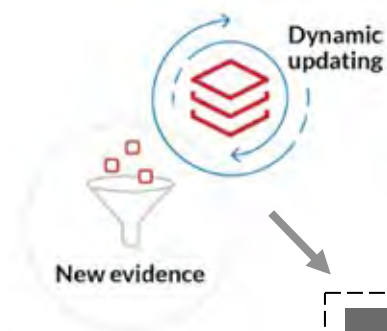
Favours [experimental] Favours [control]

# Our Lab = **MAGIC** app

38 000  
Users

49 active  
Organisations  
(and many more testing)

140  
Public guidelines



**M**  
app



**Guideline panel  
Systematic Reviewers**  
Using MAGICapp

## **AUTHORING**



**Database**  
Structured and  
tagged content

## **PUBLICATION**

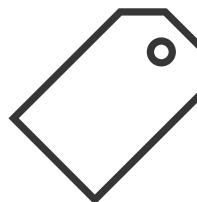
**Multilayered formats**  
For all devices



**Integration in  
the EMR**



**Adaptation**  
National and local  
or EBM textbooks



**Decision aids**





# SHARE-IT

# ANALYSIS

---

## SPOTLIGHT: PATIENT CENTRED CARE

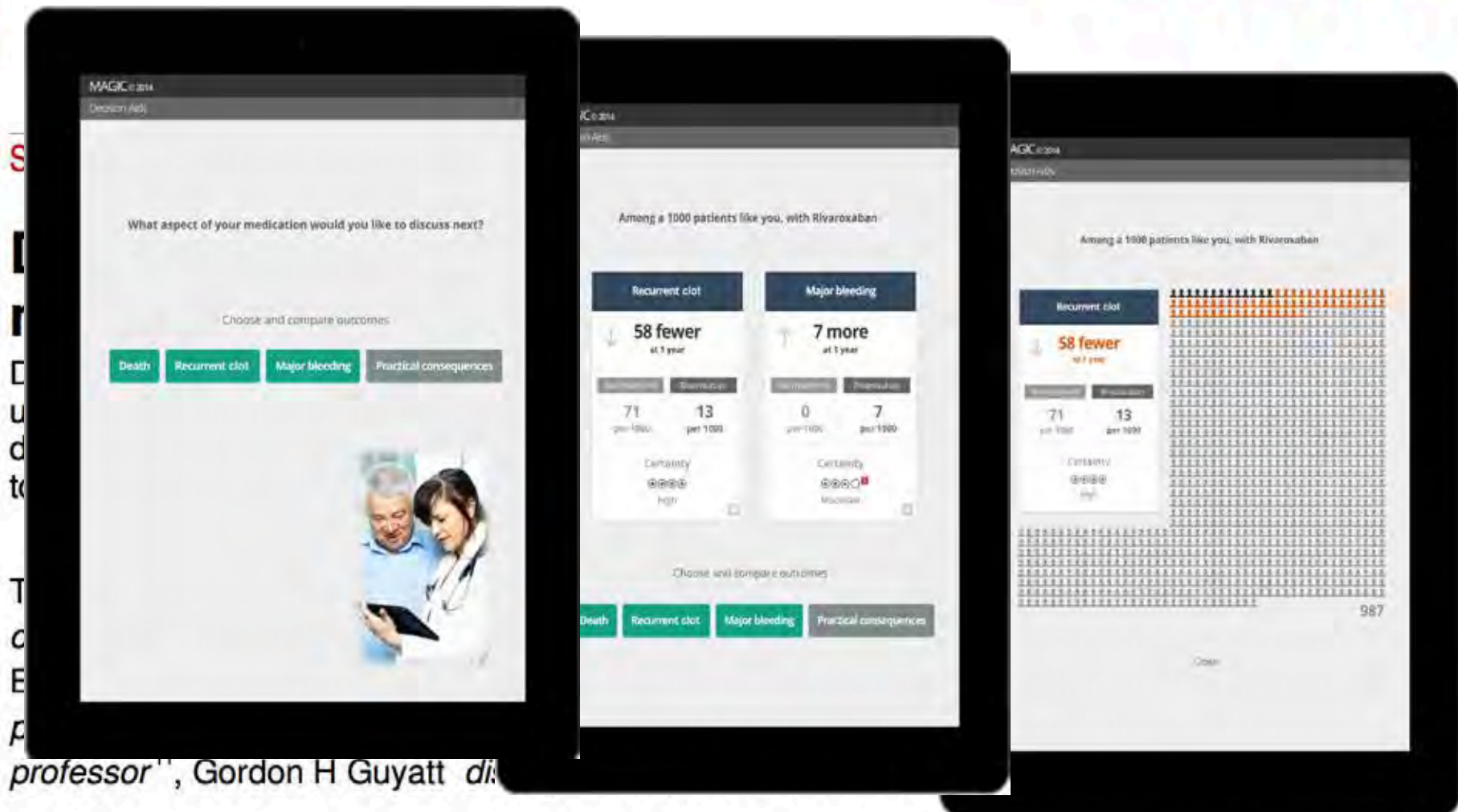
### Decision aids that really promote shared decision making: the pace quickens

Decision aids can help shared decision making, but most have been hard to produce, onerous to update, and are not being used widely. **Thomas Agoritsas and colleagues** explore why and describe a new electronic model that holds promise of being more useful for clinicians and patients to use together at the point of care

Thomas Agoritsas *research fellow*<sup>1,2</sup>, Anja Fog Heen *doctoral candidate*<sup>3,4</sup>, Linn Brandt *doctoral candidate*<sup>3,4</sup>, Pablo Alonso-Coello *associate researcher*<sup>1,5</sup>, Annette Kristiansen *doctoral candidate*<sup>3,4</sup>, Elie A Akl *associate professor*<sup>1,6</sup>, Ignacio Neumann *assistant professor*<sup>1,7</sup>, Kari AO Tikkinen *adjunct professor*<sup>1,8</sup>, Trudy van der Weijden *professor*<sup>9</sup>, Glyn Elwyn *professor*<sup>10</sup>, Victor M Montori *professor*<sup>11</sup>, Gordon H Guyatt *distinguished professor*<sup>1</sup>, Per Olav Vandvik *associate professor*<sup>3,4</sup>

# SHARE-IT

# ANALYSIS

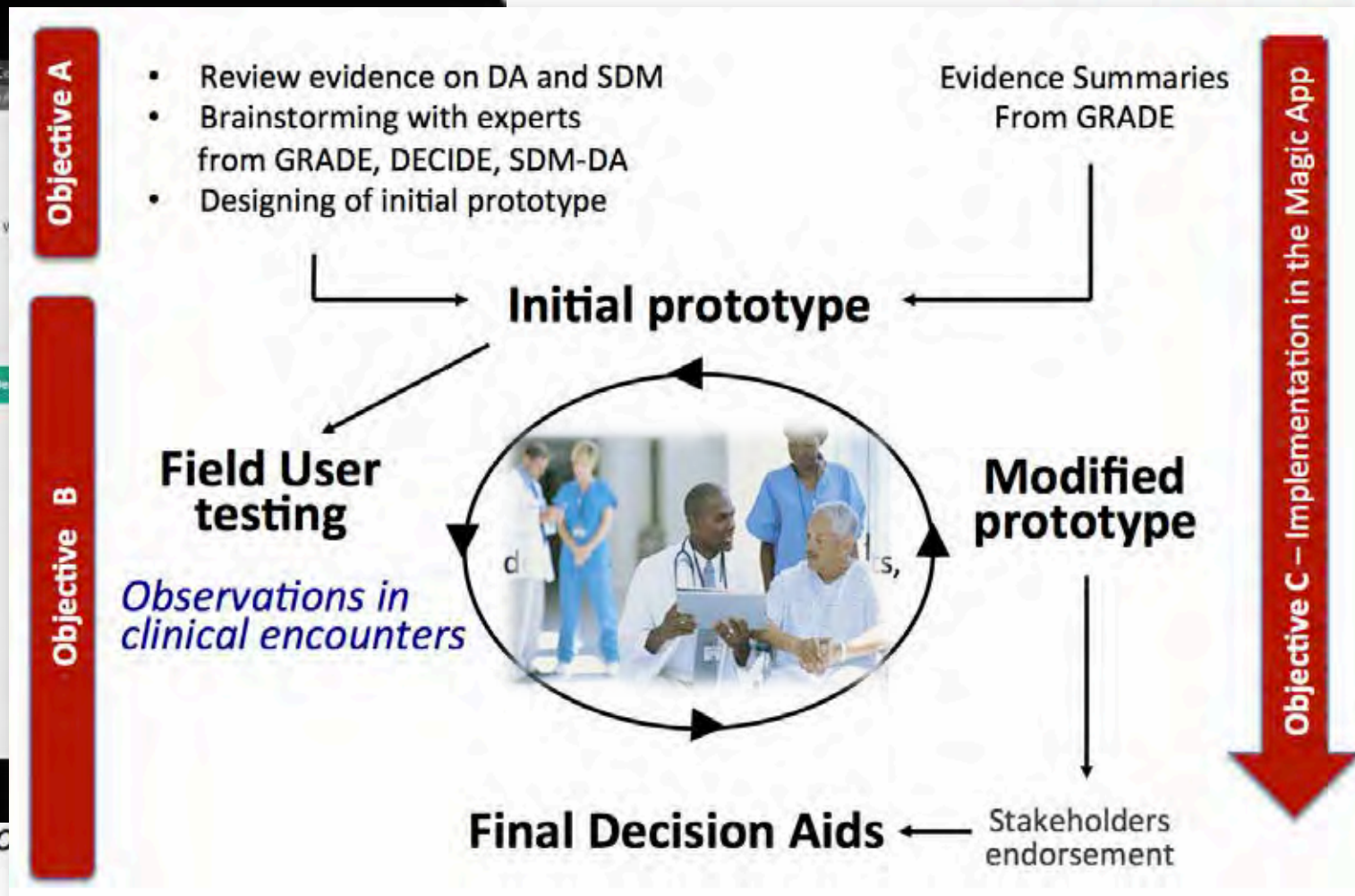


professor", Gordon H Guyatt *dis*



# SHARE-IT

# ANALYSIS





UiO : University of Oslo



thebmj

Research ▾

Education ▾

News & Views ▾

Campaigns

BMJ 2016 ; 354 doi: <http://dx.doi.org/10.1136/bmj.i5191> (Published 28 September 2016)

Cite this as: BMJ 2016;354:i5191

Reed A Siemieniuk, methodologist<sup>1 2</sup>, Thomas Agoritsas, assistant professor<sup>1 3</sup>, Helen Macdonald, acting head of education section<sup>4</sup>, Gordon H Guyatt, distinguished professor<sup>1 5</sup>, Linn Brandt, methodologist<sup>6</sup>, Per O Vandvik, associate professor<sup>6 7</sup>

## HOW WE MAKE A **RAPID REC**



New BMJ collaboration accelerates evidence into practice to answer the questions that matter quickly and transparently through trustworthy recommendations

Siemieniuk, **Agoritsas** et al. Introduction to BMJ Rapid Recommendations. *BMJ* 2016;354:i5191.  
**Agoritsas** et al. The BMJ Rapid Recommendations. *Rev Med Suisse* 2019;15:149-55.





thebmj

Research ▾

Education ▾

News & Views ▾

Campaigns

BMJ 2016 ; 354 doi: <http://dx.doi.org/10.1136/bmj.i5191> (Published 28 September 2016)

Cite this as: BMJ 2016;354:i5191

Reed A Siemieniuk, methodologist<sup>1 2</sup>, Thomas Agoritsas, assistant professor<sup>1 3</sup>, Helen Macdonald, acting head of education section<sup>4</sup>, Gordon H Guyatt, distinguished professor<sup>1 5</sup>, Linn Brandt, methodologist<sup>6</sup>, Per O Vandvik, associate professor<sup>6 7</sup>

## HOW WE MAKE A **RAPID REC**

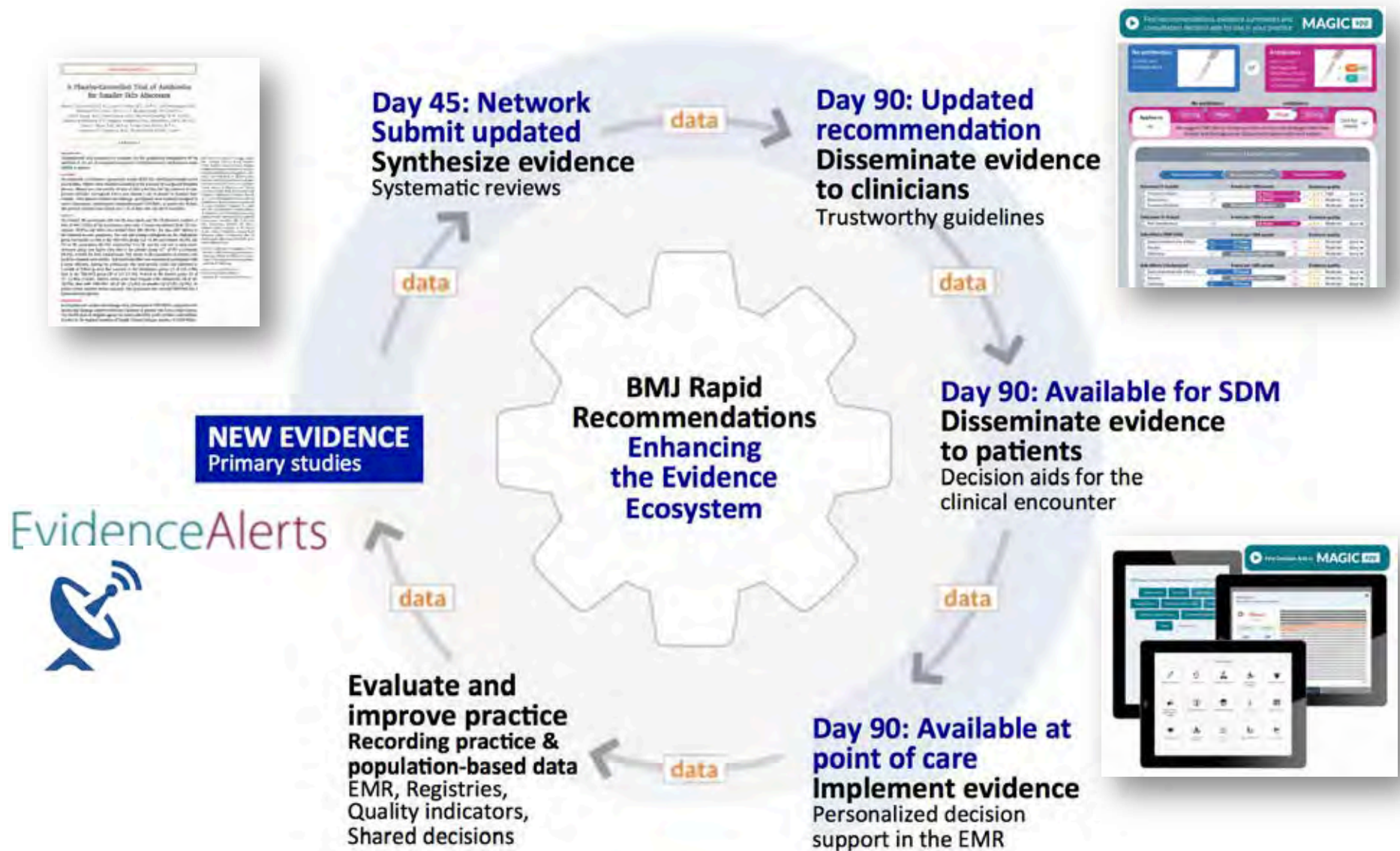
✓ Trustworthy

✓ Timely

✓ Actionable

Siemieniuk, **Agoritsas** et al. Introduction to BMJ Rapid Recommendations. *BMJ* 2016;354:i5191.  
**Agoritsas** et al. The BMJ Rapid Recommendations. *Rev Med Suisse* 2019;15:149-55.

# BMJ RapidRecs : 90-100 day objective



# thebmj Rapid Recommendations (Rapid Recs)



Patient partners



WARNING!



CLINICAL PRACTICE  
GUIDELINES  
WE CAN TRUST

making of evidence



**GRADE**

**M** Authoring &  
Publication  
Platform

Infographics  
Decision Aids

Prostate cancer screening

Screening

[www.bmj.com/rapid-recommendations](http://www.bmj.com/rapid-recommendations)

Corticosteroids for treatment of sore throat

**n=14 guidelines in 3 years**

**n=25 recs**

**n=18 SR**

Primary Care

Antibiotics for uncomplicated skin abscesses

Antiretroviral therapy in pregnant women living with HIV

Drugs  
Acute care

Dual vs single antiplatelet therapy

Corticosteroid therapy for sepsis

Altmetric \*



Thyroid hormones treatment for subclinical hypothyroidism

Oxygen therapy for acutely ill medical patients

Low intensity pulsed ultrasound (LIPUS) for bone healing

**Strong Recs Against**



Subacromial decompression surgery for adults with shoulder pain

**De-implementation**

Arthroscopic surgery for degenerative knee arthritis and meniscal tears \*

Atraumatic (pencil-point) versus conventional needles for lumbar puncture

Devices

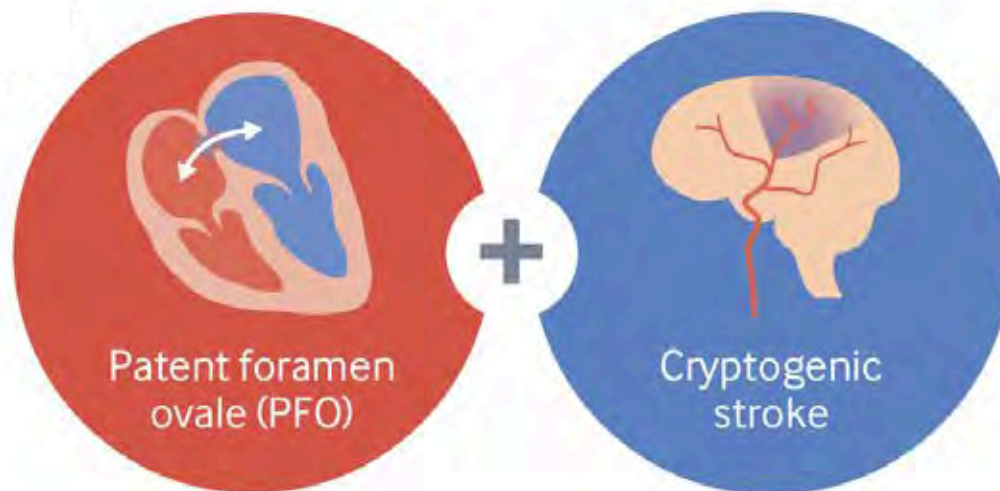
Transcatheter versus surgical aortic valve replacement

Patent foramen ovale closure or drug therapy for management of cryptogenic stroke



# John, 60 years old

- Teacher secondary school, considering early retirement
- Treated for hypertension
- Minor stroke (NIHSS 3)
  - No persistent disabling neurological deficit
  - Patent Foramen Ovale (PFO)
  - Cryptogenic



No atrial fibrillation

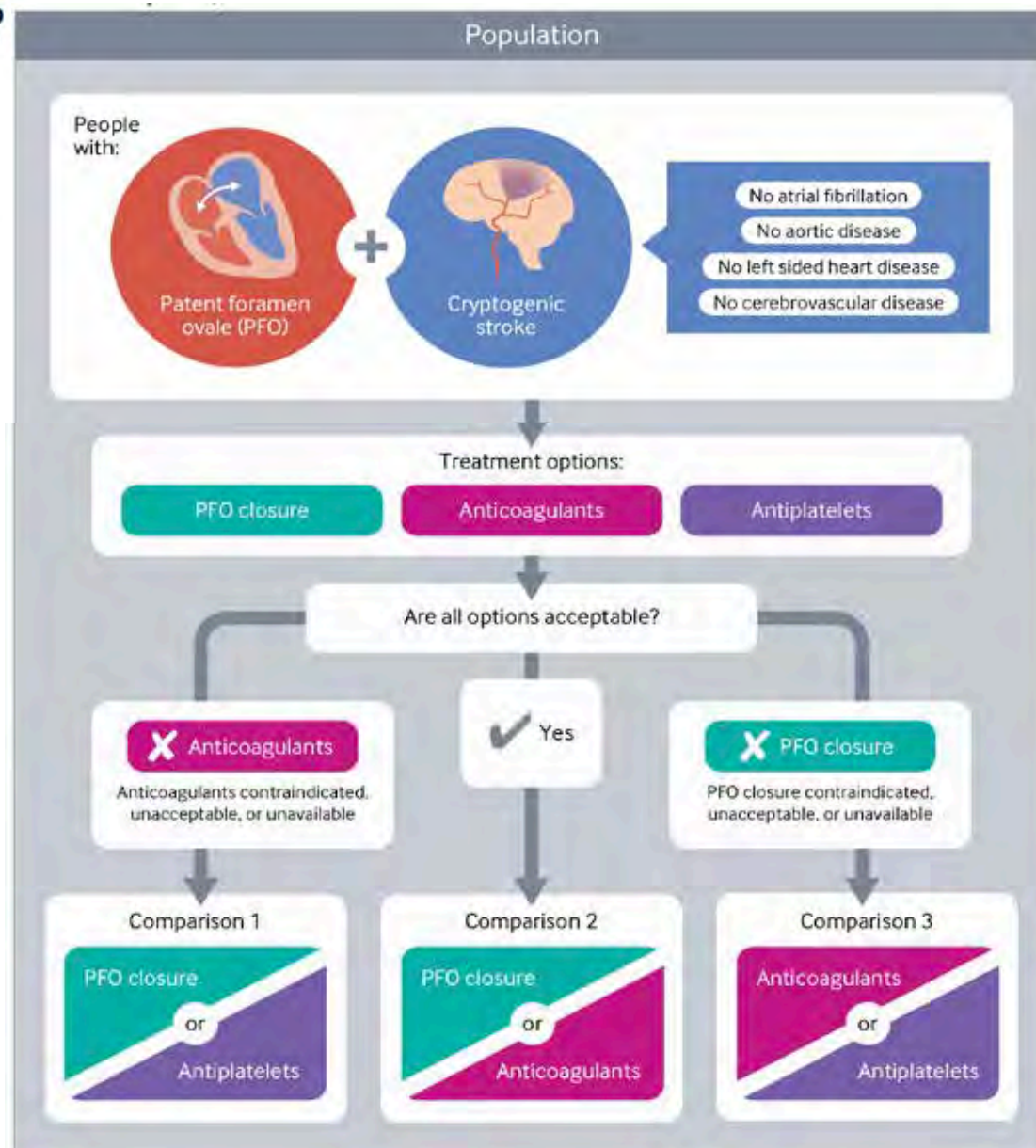
No aortic disease

No left sided heart disease

No cerebrovascular disease

# Patent foramen ovale closure, antiplatelet therapy or anticoagulation therapy alone for management of cryptogenic stroke? A clinical practice guideline

Ton Kuijpers,<sup>1</sup> Frederick A Spencer,<sup>2</sup> Reed A C Siemieniuk,<sup>3,4</sup> Per O Vandvik,<sup>5,6</sup> Catherine M Otto,<sup>7</sup> Lyubov Lytvyn,<sup>2</sup> Hassan Mir,<sup>2</sup> Albert Y Jin,<sup>8</sup> Veena Manja,<sup>9</sup> Ganesan Karthikeyan,<sup>10</sup> Elke Hoendermis,<sup>11</sup> Janet Martin,<sup>12</sup> Sebastian Carballo,<sup>13</sup> Martin O'Donnell,<sup>14</sup> Trond Vartdal,<sup>15</sup> Christine Baxter,<sup>16</sup> Bray Patrick-Lake,<sup>17</sup> Joanie Scott,<sup>18</sup> Thomas Agoritsas,<sup>3,19</sup> Gordon Guyatt<sup>2,3</sup>





## Comparison 1

### PFO closure

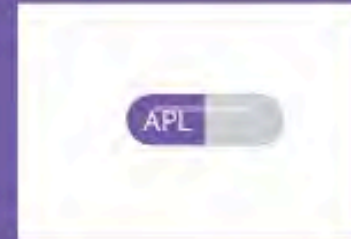
Percutaneous closure of PFO followed by antiplatelet therapy



or

### Antiplatelets

Antiplatelet therapy alone



#### PFO closure

Strong

Weak

#### Antiplatelets

Weak

Strong

More details

We recommend PFO closure followed by antiplatelet therapy over antiplatelet therapy alone.

## Comparison of benefits and harms

Favours PFO closure

No important difference

Favours antiplatelets

#### Within 5 years

	Events per 1000 people		Evidence quality
Ischaemic stroke	13	87 fewer	100 ★★★★★ Moderate More ▼
Death	9	No important difference	3 ★★★★★ Moderate More ▼
Major bleeding	7	No important difference	14 ★★★★★ Moderate More ▼

#### Within 1 year

	Events per 1000 people		Evidence quality
Persistent AF i flutter	23	18 fewer	5 ★★★★★ Moderate More ▼
Device-related adverse events	36	36 fewer	0 ★★★★★ High More ▼

See all outcomes **MAGIC app**

See patient decision aids **MAGIC app**

## Comparison 2

### PFO closure

Percutaneous closure of PFO followed by antiplatelet therapy



or

### Anticoagulants

Anticoagulation therapy



#### PFO closure

Strong

Weak

#### Anticoagulants

Weak

Strong

More details

We suggest PFO closure followed by antiplatelet therapy over anticoagulation therapy. Discuss both options with each patient.

## Comparison of benefits and harms

Favours PFO closure

No important difference

Favours anticoagulants

#### Within 5 years

	Events per 1000 people		Evidence quality	
Ischaemic stroke	13	No important difference 29	★ ★ ★ ★ Low	More ▼
Death	9	No important difference 13	★ ★ ★ ★ Moderate	More ▼
Major bleeding	7	20 fewer 27	★ ★ ★ ★ Moderate	More ▼

#### Within 1 year

	Events per 1000 people		Evidence quality	
Persistent AF flutter	23	18 fewer 5	★ ★ ★ ★ Moderate	More ▼
Device-related adverse events	36	36 fewer 0	★ ★ ★ ★ High	More ▼

See all outcomes

MAGIC app

See patient decision aids

MAGIC app



## Comparison 3

### Anticoagulants

Anticoagulation therapy

OAC

or

### Antiplatelets

Antiplatelet therapy

APL

#### Anticoagulants

Strong

Weak

#### Antiplatelets

Weak

Strong

More details

We suggest anticoagulation over antiplatelet therapy.  
Discuss both options with each patient.

## Comparison of benefits and harms

Favours anticoagulants

No important difference

Favours antiplatelets

Within 5 years

Events per 1000 people

Evidence quality

Ischaemic stroke	29	71 fewer	100	★ ★ ★ ★ Low	More ▼
Death	13	No important difference	3	★ ★ ★ ★ Low	More ▼
Major bleeding	26	12 fewer	14	★ ★ ★ ★ Moderate	More ▼
Pulmonary embolism	1	No important difference	5	★ ★ ★ ★ Moderate	More ▼

See all outcomes **MAGIC app**

See patient decision aids **MAGIC app**

Outcome Timeframe	Study results and measurements	Absolute effect estimates		Certainty of the Evidence (Quality of evidence)	Plain text summary
		Anticoagulation	PFO closure plus antiplatelet therapy		
<b>Ischaemic stroke</b> Standardized to 5 years  <span>8</span> Critical	Odds Ratio 0.44 (CI 95% 0.08 - 3.83) Based on data from 353 patients in 1 study Follow up: 5.3 years.	<b>29</b> per 1000  Difference: <b>16 fewer per 1000</b> (CI 95% 29 fewer - 10 more)	<b>13</b> per 1000	<b>Low</b> Due to very serious imprecision	There may be little or no difference in ischaemic stroke
<b>Ischaemic stroke (modelling data from VTE literature)</b> Standardized to 5 years  <span>8</span> Critical	Odds Ratio 0.93 (CI 95% 0.31 - 2.76)	<b>29</b> per 1000  Difference: <b>2 fewer per 1000</b> (CI 95% 20 fewer - 47 more)	<b>27</b> per 1000	<b>Low</b> Due to serious imprecision and serious indirectness	There may be little or no difference in ischaemic stroke
<b>Death</b> Standardized to 5 years  <span>9</span> Critical	Relative risk 0.69 (CI 95% 0.02 - 32.36) Based on data from 353 patients in 1 study Follow up: 5.3 years.	<b>13</b> per 1000  Difference: <b>4 fewer per 1000</b> (CI 95% 13 fewer - 9 more)	<b>9</b> per 1000	<b>Moderate</b> Due to serious imprecision	There is probably little or no difference in death
<b>Major bleeding</b> Standardized to 5 years  <span>7</span> Critical	Odds Ratio 0.26 (CI 95% 0.07 - 0.82) Based on data from 353 patients in 1 study Follow up: 5.3 years.	<b>27</b> per 1000  Difference: <b>20 fewer per 1000</b> (CI 95% 27 fewer - 2 fewer)	<b>7</b> per 1000	<b>Moderate</b> Due to serious imprecision	PFO closure plus antiplatelet therapy probably decreases major bleeding
<b>Major bleeding (modelling data from VTE literature)</b> Standardized to 5 years  <span>7</span> Critical	Odds Ratio 0.28 (CI 95% 0.13 - 0.55)	<b>24</b> per 1000  Difference: <b>17 fewer per 1000</b> (CI 95% 21 fewer - 11 fewer)	<b>7</b> per 1000	<b>Moderate</b> Due to serious indirectness	PFO closure plus antiplatelet therapy probably decreases major bleeding



Outcome Timeframe	Study results and measurements	Absolute effect estimates		Certainty of the Evidence (Quality of evidence)	Plain text summary
		Anticoagulation	PFO closure plus antiplatelet therapy		
<b>Ischaemic stroke</b> Standardized to 5 years  <span>8</span> Critical	Odds Ratio 0.44 (CI 95% 0.08 - 3.83) Based on data from 353 patients in 1 study Follow up: 5.3 years.	<b>29</b> per 1000  Difference: <b>16 fewer per 1000</b> (CI 95% 29 fewer - 10 more)	<b>13</b> per 1000	<b>Low</b> Due to very serious imprecision	There may be little or no difference in ischaemic stroke
<b>Ischaemic stroke (modelling data from VTE literature)</b> Standardized to 5 years  <span>8</span> Critical	Odds Ratio 0.93 (CI 95% 0.31 - 2.76)				
<b>Death</b> Standardized to 5 years  <span>9</span> Critical	Relative risk 0.69 (CI 95% 0.02 - 32.36) Based on data from 353 patients study Follow up: 5.3 years.				
<b>Major bleeding</b> Standardized to 5 years  <span>7</span> Critical	Odds Ratio 0.26 (CI 95% 0.07 - 0.82) Based on data from 353 patients study Follow up: 5.3 years.				
<b>Major bleeding (modelling data from VTE literature)</b> Standardized to 5 years  <span>7</span> Critical	Odds Ratio 0.28 (CI 95% 0.13 - 0.55)				



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

Ischaemic stroke

Death

Major bleeding

Persistent atrial fibrillation or flutter

Transient atrial fibrillation or flutter

Device or procedure related adverse event

Transient ischaemic attack

Pulmonary embolism

Systemic embolism

Practical issues

## Ischaemic stroke

Among a 1000 patients like you, with PFO closure plus antiplatelet therapy



**16 fewer**

Standardized to 5 years

Anticoagulation

PFO closure plus  
antiplatelet  
therapy

**29**

per 1000

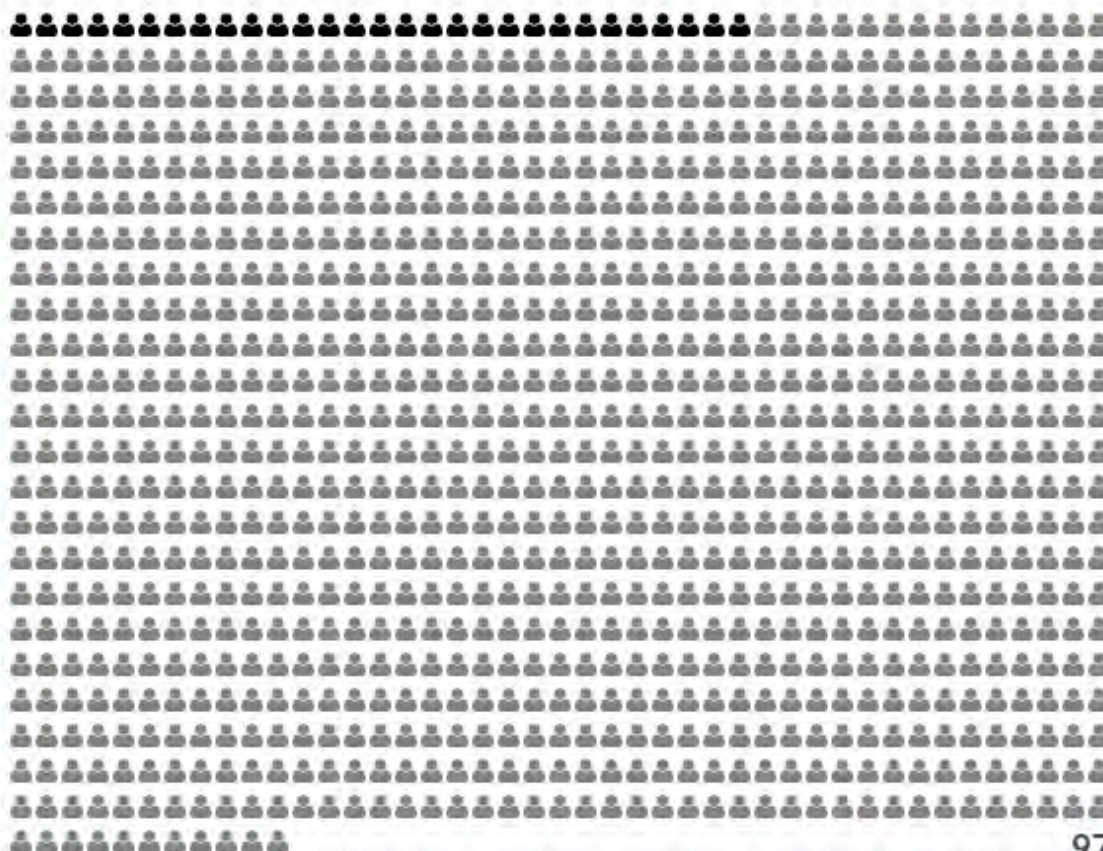
**13**

per 1000

Certainty



LOW



971

Transient atrial fibrillation or flutter

Device or procedure related adverse event



## Ischaemic stroke

Among a 1000 patients like you, with PFO closure plus antiplatelet therapy



**16 fewer**

Standardized to 5 years

Anticoagulation

**29**

per 1000

PFO closure plus  
antiplatelet  
therapy

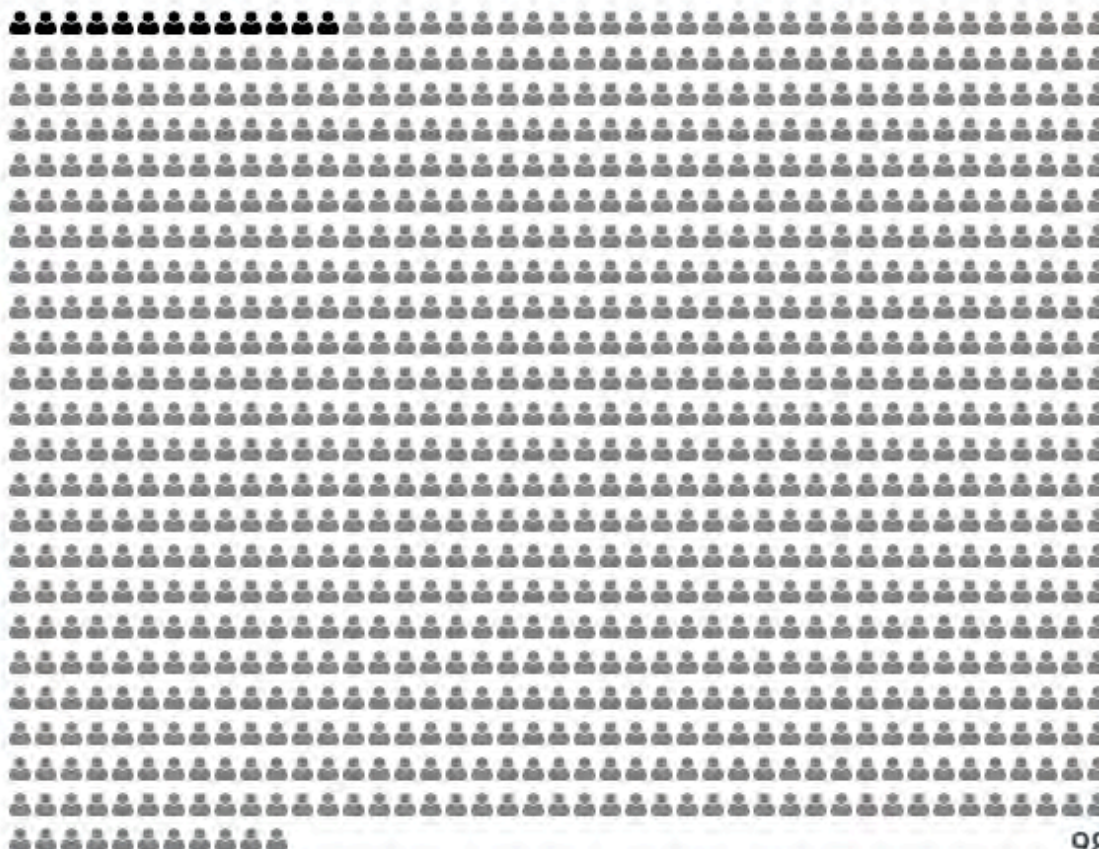
**13**

per 1000

Certainty



LOW



987

Transient atrial fibrillation or flutter

Device or procedure related adverse event

## Ischaemic stroke

Among a 1000 patients like you, with PFO closure plus antiplatelet therapy



**16 fewer**

Standardized to 5 years

Anticoagulation

PFO closure plus  
antiplatelet  
therapy

**29**

per 1000

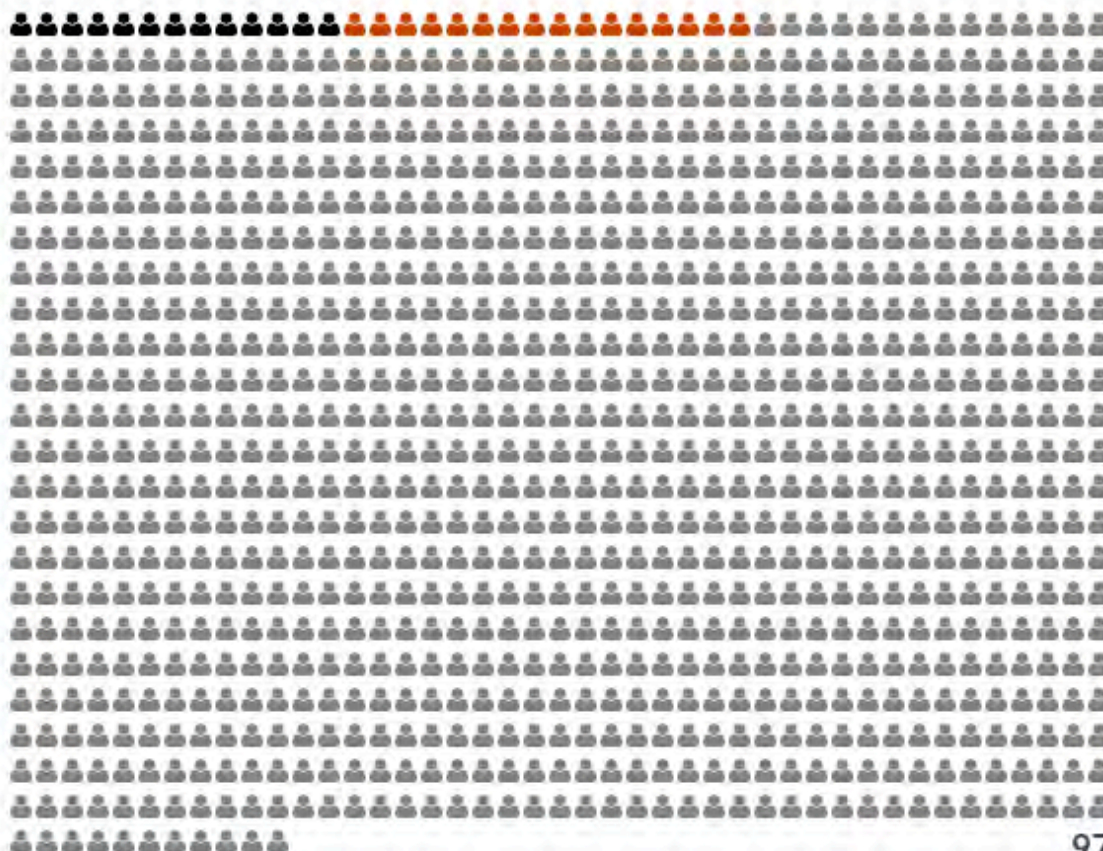
**13**

per 1000

Certainty



LOW



971

Transient atrial fibrillation or flutter

Device or procedure related adverse event



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

Ischaemic stroke

Death

Major bleeding

Persistent atrial fibrillation or flutter

Transient atrial fibrillation or flutter

Device or procedure related adverse event

Transient ischaemic attack

Pulmonary embolism

Systemic embolism

Practical issues



## Major bleeding

Among a 1000 patients like you, with PFO closure plus antiplatelet therapy



**20 fewer**

Standardized to 5 years

Anticoagulation

PFO closure plus  
antiplatelet therapy

**27**

per 1000

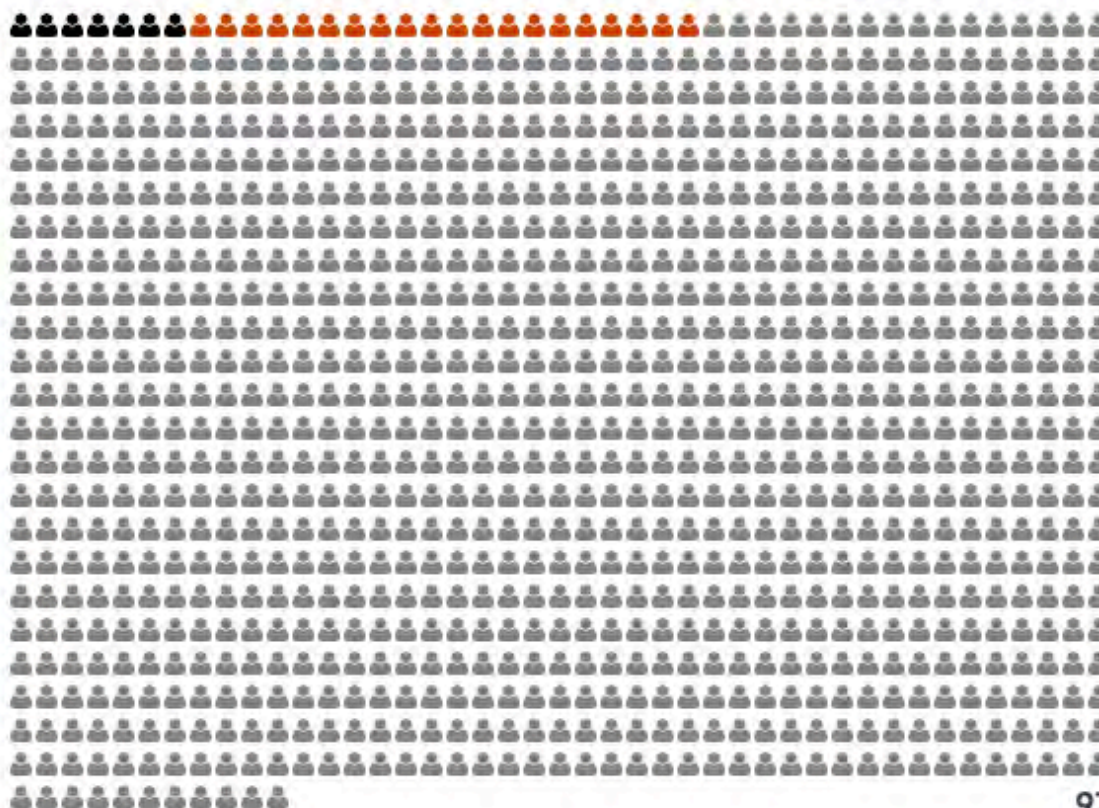
**7**

per 1000

Certainty



MODERATE



973

Ischaemic stroke

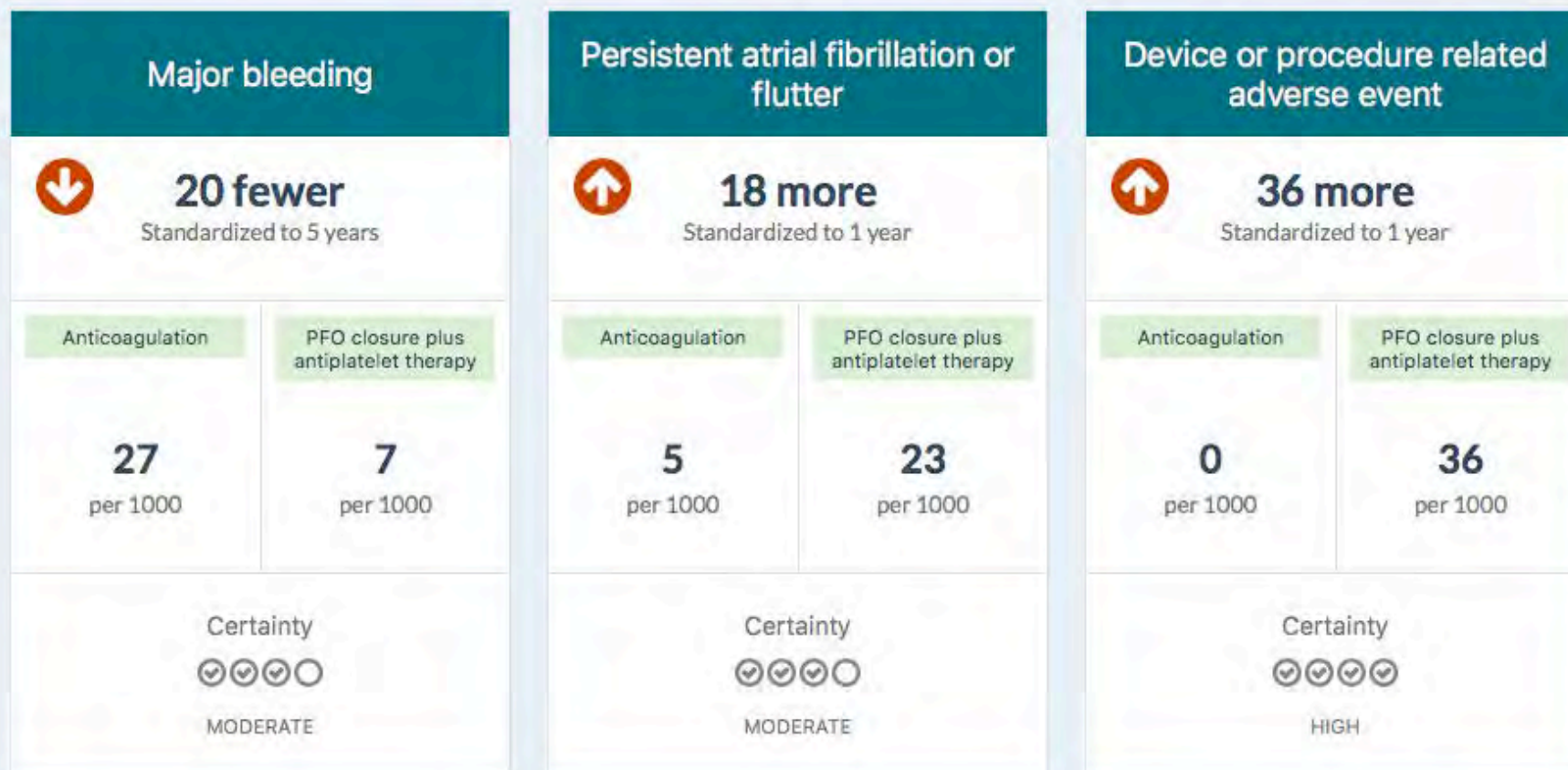
Ischaemic stroke (modelling data from VTE literature)

Death

Major bleeding (modelling data from VTE literature)

Transient atrial fibrillation or flutter

Among a 1000 patients like you, on average with PFO closure plus antiplatelet therapy



Ischaemic stroke

Ischaemic stroke (modelling data from VTE literature)

Death

Major bleeding (modelling data from VTE literature)

Transient atrial fibrillation or flutter

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

Ischaemic stroke

Death

Major bleeding

Persistent atrial fibrillation or flutter

Transient atrial fibrillation or flutter


Device or procedure related adverse event

Transient ischaemic attack

Pulmonary embolism

Systemic embolism

Practical issues





► A-Z

► Categories

► Young people

Search

Home

## 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. ”

PEOPLE'S EXPERIENCES OF HEALTH

LEARNING & TEACHING

HEALTH PROFESSIONALS

YOUNG PEOPLE

## 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



## Tests and visits



### with PFO closure plus antiplatelet therapy

May include 1 or 2 visits to the cardiologist in the first 6 months followed by an appointment every 1-2 years.

### with Anticoagulation

Initial frequent testing required to achieve appropriate dose. Periodic testing required while taking medication.



Medication  
routine



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





## Procedure and device



### with PFO closure plus antiplatelet therapy

The PFO device will be implanted using a catheter (long, thin, flexible, hollow tube), inserted through a small cut made at the inner thigh (groin), with local anaesthesia and moderate sedation or under general anaesthesia.

The procedure takes under 2 hours. In-hospital stay is usually one day.



Medication  
routine



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

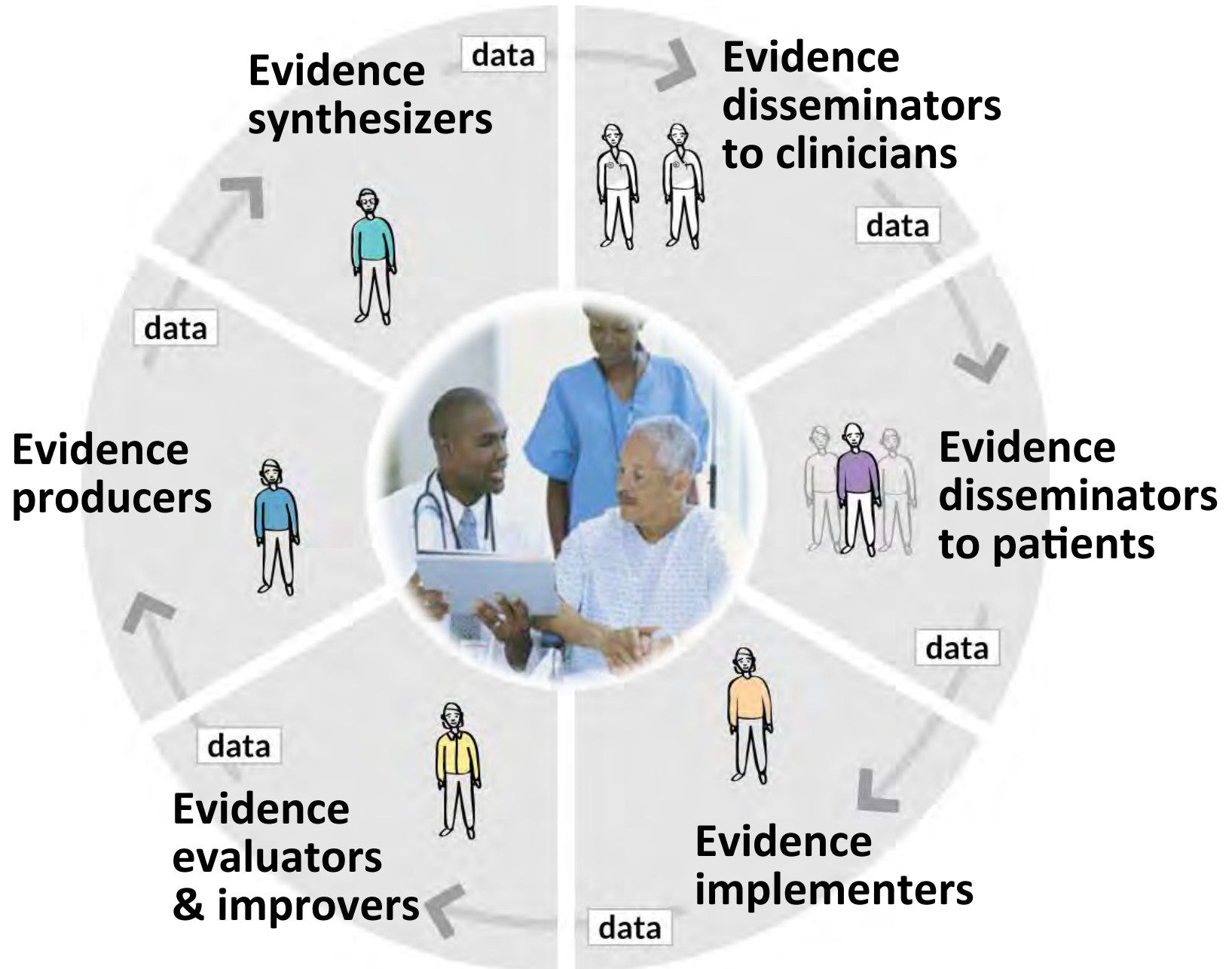


Work and  
education

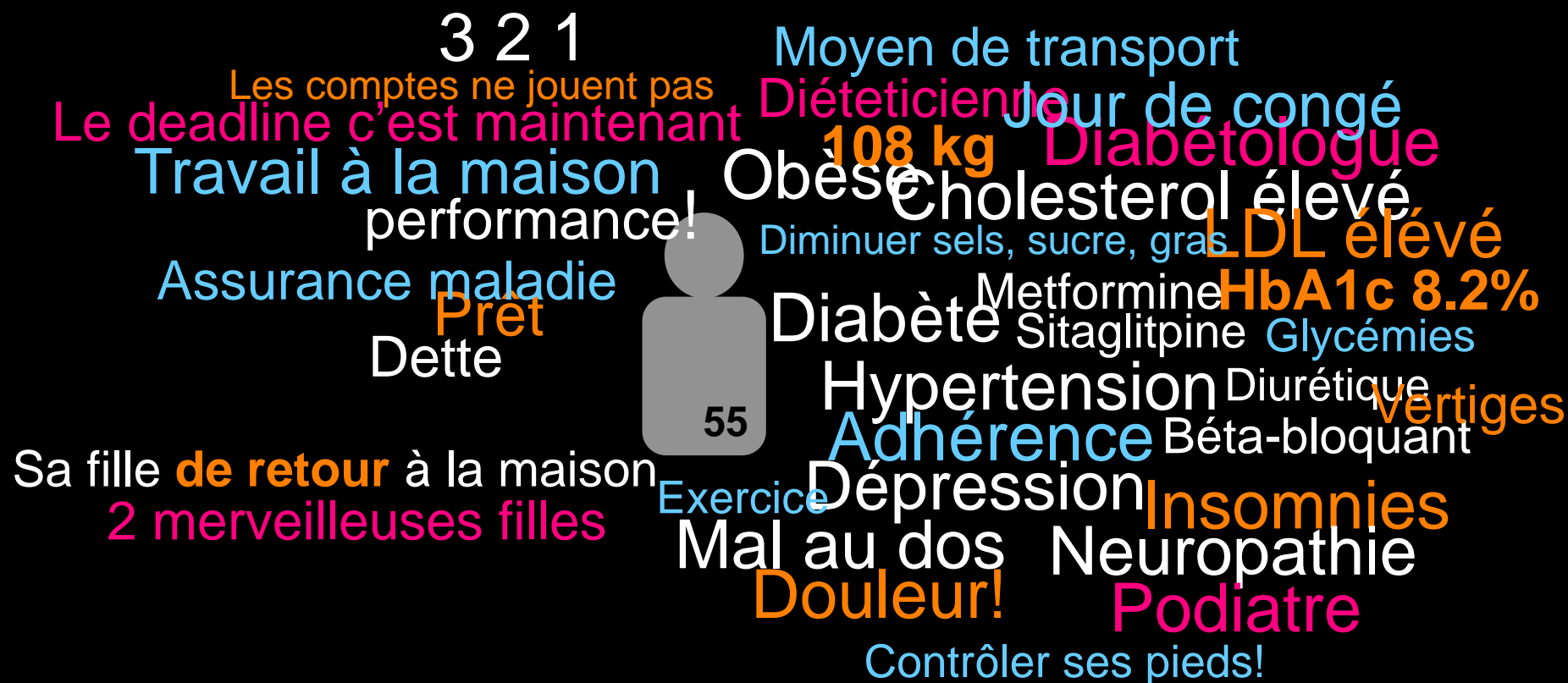


Travel and driving

# The Evidence Ecosystem

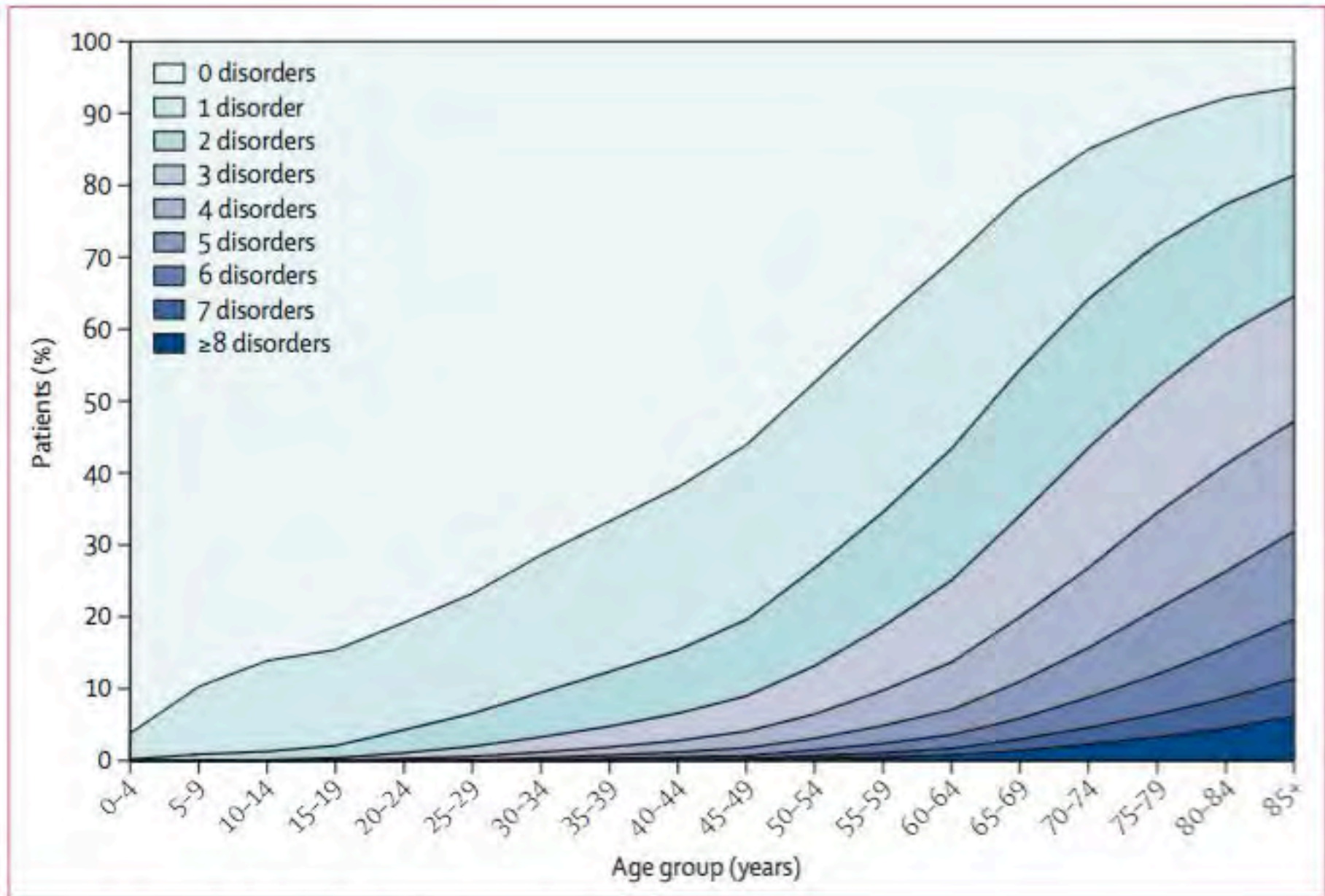


*Voici Jean, 55 ans*



*Adapté avec la permission de V. Montori*





**Figure 1: Number of chronic disorders by age-group**

# The “work” of the patient

## Burden



Figure 1. The cumulative complexity model.

## Capacity



# More time for patients project



Darbellay Farhoumand P, Le Du S, Perrier A,  
**Agoritsas T.** *Rev Med Suisse* 2018;14:1550-5.

Sophie Le Du & team  
Prof Arnaud Perrier

All hospital teams that  
are implementing it



**JAMA** July 2, 2019

## Shared Decision Making and the Importance of Time

Time can be considered an organizing tool  
that controls what happens and when.

Changing attitudes alone will not create time for shared decision making. Because the science of allocating time for care is in its infancy, medicine must innovate. New scheduling algorithms



## Priorités de mise en œuvre

**Protéger le temps patient et répondre en temps réel à ses besoins.**

Activer la collaboration médico-patient-soignante autour du plan de prise en charge et du tableau patient. Fluidifier l'information et la communication en augmentant la visibilité pour répondre aux besoins des patients. Toutes les activités possibles sont délivrées au patient ou auprès du patient. Les autres activités sont réduites au minimum.

**Avoir les bonnes informations en un coup d'œil.**

Anticiper et standardiser de manière intelligente afin de réduire la complexité. Il est facile et rapide d'avoir les informations nécessaires et mises à jour en tout temps et sans avoir à demander.

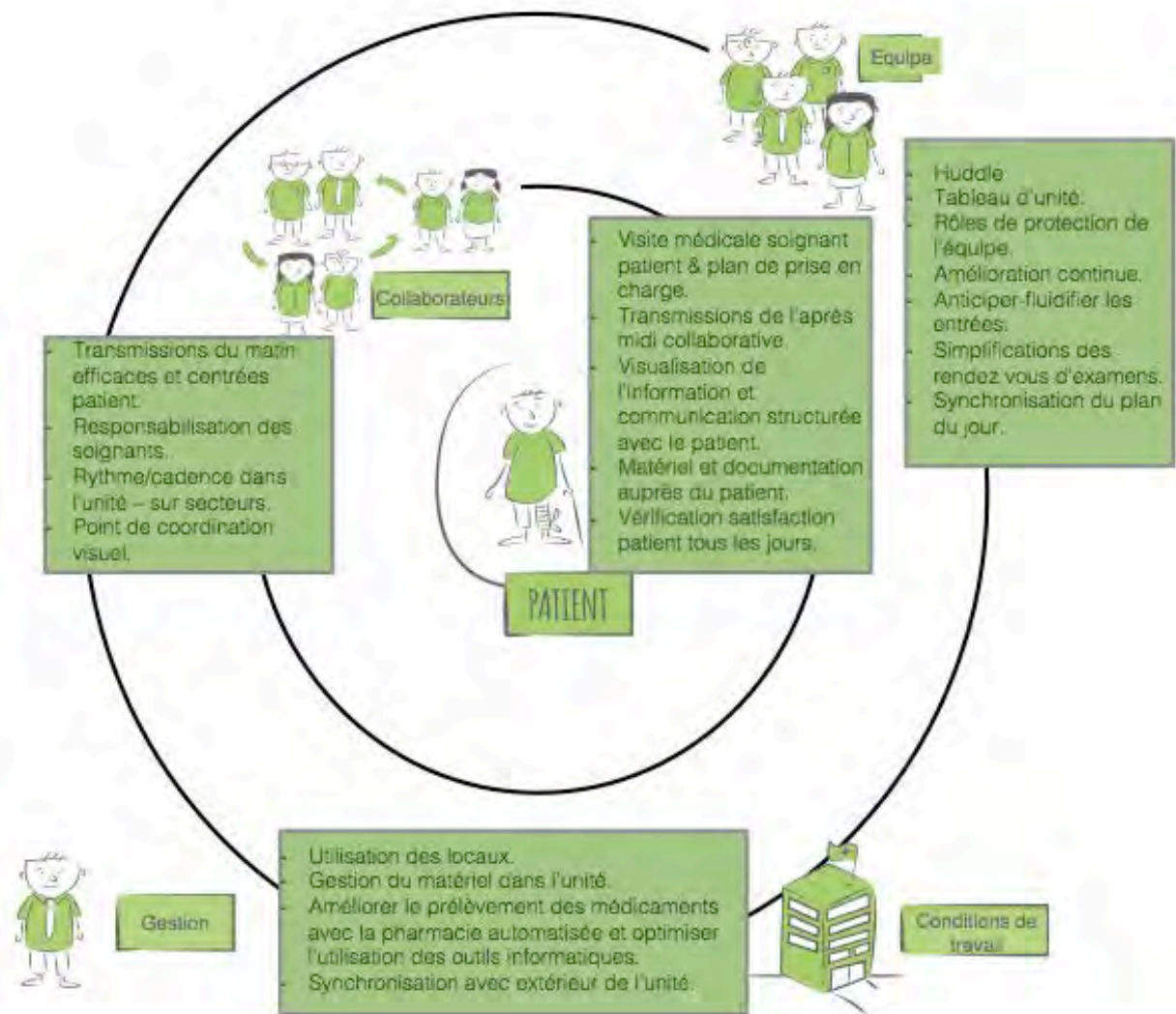
**Impliquer le patient à chaque étape, décider ensemble.**

Prise en compte des décisions et priorités du patient, lui donner confiance permet de l'intégrer comme partenaire de son processus de soin.

**La bonne chose au bon endroit au bon moment par la bonne personne.**

Grâce à des processus simplifiés, les collaborateurs ont plus de temps pour s'occuper des patients et commettent moins d'erreurs.

*Priorisation: Vers un **système** de solutions*



## Tableau patient et plan de prise en charge

### MON HOSPITALISATION

1.

*Infection du  
poumon*

2.

*Masse dans le  
foie ?*

3.

*Moral*

### SORTIE

*14 décembre ?*

présentation médico-soignante dès 9h30

**HUG** Hôpitaux  
Universitaires  
Genève

Alimentation ☐ Normal ☐ A jeun ☐ Autre : \_\_\_\_\_

Hydratation ☐ Libre ☐ Autre : \_\_\_\_\_

Mobilisation ☐ Libre ☐ Autre : \_\_\_\_\_

Qu'est-ce qui est important pour vous aujourd'hui ?

Patient-e / proches  
Remarques, vos questions, etc.

Plan de  
prise en charge



Est-ce qu'on  
a **écouté** ce  
qui compte  
pour vous?



Est-ce qu'on  
vous a aidé à  
**comprendre**  
vos problèmes  
de santé?



Est-ce qu'on  
prend **ensemble**  
les **décisions** qui  
vous concernent ?



Etes-vous  
**satisfait(e)**  
de vos soins  
**aujourd'hui?**



***Que pourrait-on encore améliorer ?***



# Patient partnership project



Sylvie Touveneau & team

Sandra Merkli

All hospital teams that are implementing it

Promoting patient partnership at all levels  
of the institution. Changing culture.

**Since March 2016 :**

- **523 patient partners**
- **748 partnership**

[www.hug-ge.ch/patients-partenaires/decouvrez-partenariat-aux-hug](http://www.hug-ge.ch/patients-partenaires/decouvrez-partenariat-aux-hug)



# Levels of partnership

Individual

1. Partnership for one's own care  
→ *eg. shared decision making*
2. Partnership for the improvement of quality of care & research  
→ *eg. projects, teaching, research...*
3. Partnership in institutional leadership
4. Health care policy

Community

# Looking for synergies beyond silos



**Feasible care  
CAN**

*EBM in JAMA, 1992  
ACP J Club 1991*



**Appropriate care  
NEED**



**Desirable care  
WANT**

***Thank you!***

 **@ThomasAgoritsas**