

## User Manual - Knowledge

### Definition

A 'Knowledge' questionnaire measures respondent's cognizance of a clinical problem, its alternatives, rationale, main benefits, risks and side effects. Items focus on information considered essential for decision making.

### Sample Tool

## What I know about osteoporosis therapy now

Here are some questions about osteoporosis therapy. We would like to know how familiar you are with osteoporosis therapy before you use the decision support strategy.

Below are listed some statements about osteoporosis therapy. Please show whether you think they are true, false, or you are not sure by circling the word beside each statement.

### 1. Major risk factors for hip fracture include:

Your mother broke her hip or wrist	True	False	Unsure
You have low bone density (< 2.5 SD)	True	False	Unsure
You've had a low trauma fracture since age 50	True	False	Unsure
Your weight is low	True	False	Unsure

### 2. Medications which lower your risk of hip fracture include:

Alendronate / Fosamax	True	False	Unsure
Etidronate / Didrocal	True	False	Unsure
Raloxifene / Evista	True	False	Unsure
Hormone replacement therapy	True	False	Unsure
Risedronate / Actonel	True	False	Unsure

### 3. Medications which lower your risk of spine fracture include:

Alendronate / Fosamax	True	False	Unsure
Etidronate / Didrocal	True	False	Unsure
Hormone replacement therapy	True	False	Unsure
Raloxifene / Evista	True	False	Unsure
Risedronate / Actonel	True	False	Unsure

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### 4. Spine fracture can cause:

Loss of height	True	False	Unsure
Curved spine (Dowager's Hump)	True	False	Unsure
Chronic back pain	True	False	Unsure

### 5. Possible benefits of taking raloxifene (Evista) are:

Decreased risk of breast cancer	True	False	Unsure
Decreased hot flashes	True	False	Unsure
Decreased bad cholesterol	True	False	Unsure

### 6. Possible side effects of using raloxifene (Evista) include:

Increased hot flashes	True	False	Unsure
Leg cramps	True	False	Unsure
Increased risk of blood clots	True	False	Unsure

### 7. Possible side effects of alendronate (Fosamax) include:

Heartburn	True	False	Unsure
Increased risk of breast cancer	True	False	Unsure
Increased risk of ulcers	True	False	Unsure

### 8. Possible benefits of taking long-term hormone replacement therapy are:

Protection from breast cancer	True	False	Unsure
Decreased urinary problems	True	False	Unsure
Reduction in hot flashes	True	False	Unsure

### 9. Possible risks and side effects of using hormone replacement therapy include:

Increased risk of breast cancer with long term use	True	False	Unsure
Increased risk of diabetes	True	False	Unsure
Increase risk of blood clots	True	False	Unsure

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### *Directions for Use*

In a short introductory statement, respondents are asked to indicate whether they believe the listed statements are true, false or respondent is unsure.

### *Scoring and Interpretation*

Items are given a score value of 1 (if respondent correctly selects 'true' or 'false') and 0 (if incorrect or respondent answers 'unsure'). Items are totaled and a mean knowledge score can be calculated. For comparison with 0 – 100 scales, the score can be converted to a percentage of correct responses.

### *Psychometric Properties*

Internal consistency coefficients: alpha 0.82 [1] and 0.83 [2,3].

Content validity is established by having panel ensure that measure taps understanding of key concepts in decision aid. Content in decision aid is based on scientific evidence.

Sensitive to change [2,4,5,6,7,8]

Discriminates between decision aids and usual care controls [1].

NB: does not usually discriminate between a simple decision aid (e.g. facts only) and a detailed decision aid (facts, probabilities, values clarification) because of the overlap in information between the two interventions [3].

### *Clinical Applications using this Tool*

Knowledge questionnaires have been developed for the following clinical applications: Atrial Fibrillation [1], HRT [2,3], Lung Cancer [4], Autologous blood donation [5], Long-term tube feeding [6], Osteoporosis [7], Breast Cancer prevention [8].

### *Availability*

**You may use any of these scales at no cost without permission.**

These tools are protected by copyright but are freely available for you to use, provided you cite the reference in any questionnaires or publications.

### *Suggested Citation*

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### References

1. Man-Son-Hing M, Laupacis A, O'Connor AM, Biggs J, Drake E, Yetisir E, Hart RG. A patient decision aid regarding antithrombotic therapy for stroke prevention in atrial fibrillation. *Journal of the American Medical Association* 1999; 282: 737-743.
2. O'Connor AM, Tugwell P, Wells GA, Elmslie T, Jolly E, Hollingworth G, McPherson R, Bunn H, Graham I, Drake E. A decision aid for women considering hormone therapy after menopause: decision support framework and evaluation. *Patient Education and Counseling* 1998; 33: 267-279.
3. O'Connor AM, Tugwell P, Wells GA, Elmslie T, Jolly E, Hollingworth G, McPherson R, Drake E, Hopman W, MacKenzie T. Randomized Trial of a Portable, Self-administered Decision Aid for Postmenopausal Women Considering Long-term Preventive Hormone Therapy. *Medical Decision Making* 1998; 18: 295-303.
4. Fiset V, O'Connor AM, Evans W, Graham I, DeGrasse C, Logan J. Development and evaluation of a decision aid for patients with stage IV non-small cell lung cancer. *Health Expectations* 2000; 3: 125-136.
5. Grant FC, Laupacis A, O'Connor AM, Rubens F, Robblee J. Evaluation of a decision aid for patients considering autologous blood donation before open-heart surgery. *Canadian Medical Association Journal* 2001; 164: 1139-1144.
6. Mitchell SL, Tetroe J, O'Connor AM. A decision aid for long-term tube feeding in cognitively impaired older persons. *Journal of the American Geriatrics Society* 2001; 49: 313-316.
7. Cranney A, O'Connor AM, Jacobsen MJ, Tugwell P, Adachi JD, Ooi DS, Waldegger L, Goldstein R, Wells GA. Development and pilot testing of a decision aid for postmenopausal women with osteoporosis. *Patient Education and Counseling* 2002; 47: 245-255.
8. Stacey CD, O'Connor AM, DeGrasse C, Verma S. Development and evaluation of a breast cancer prevention decision aid for higher risk women. *Health Expectations* 2003; 6: 3-18.