

Perspectives on reimbursement of healthtech and digital health in Denmark

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Content

1. The Danish Health Technology Council
2. The reasons behind
3. Assessment of digital healthtech - Lessons learned after many mistakes
4. Conclusion

The Danish Health Technology Council

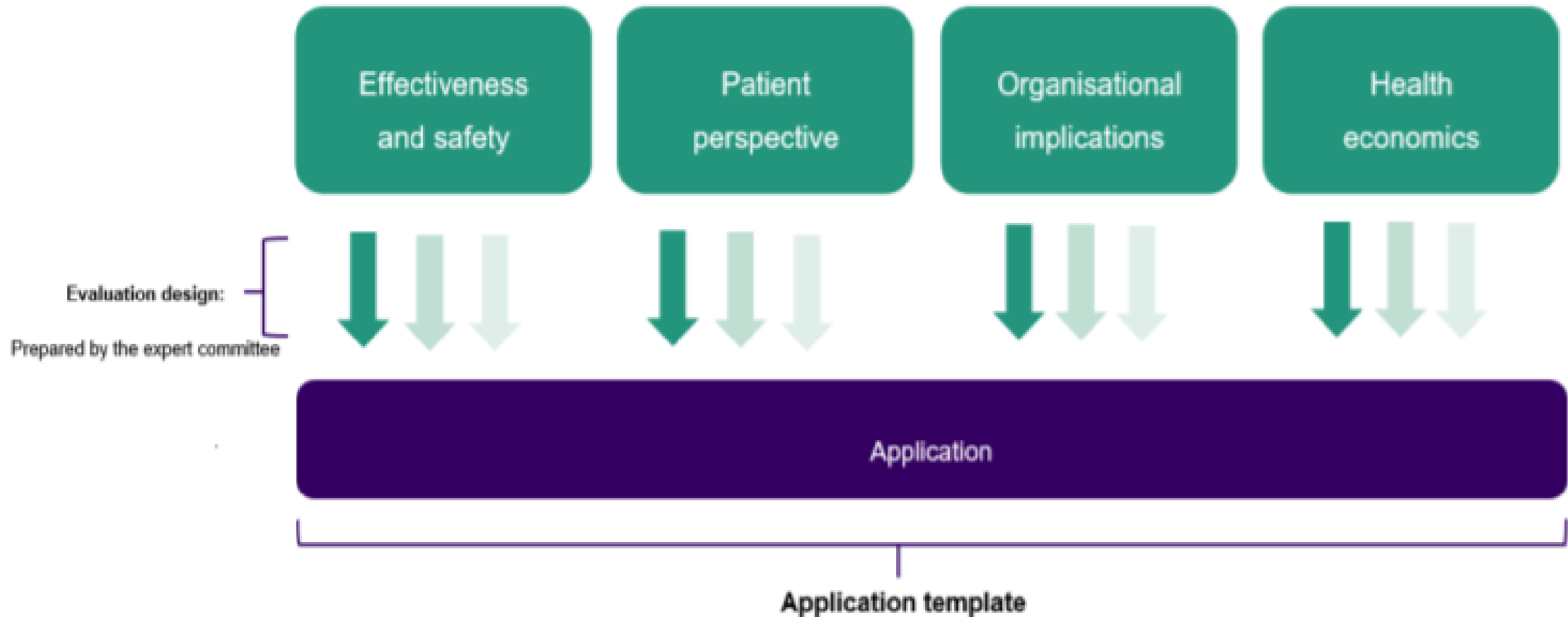
- Clinical questions
 - Improvement in morbidity/mortality
 - Level of evidence (GRADE)
 - Patient safety
- Patient perspective
 - Satisfaction, empowerment..
- Organisational implications
 - Education, work environment,...
- Health economics:
 - Health economic evaluation
 - Budget impact analysis



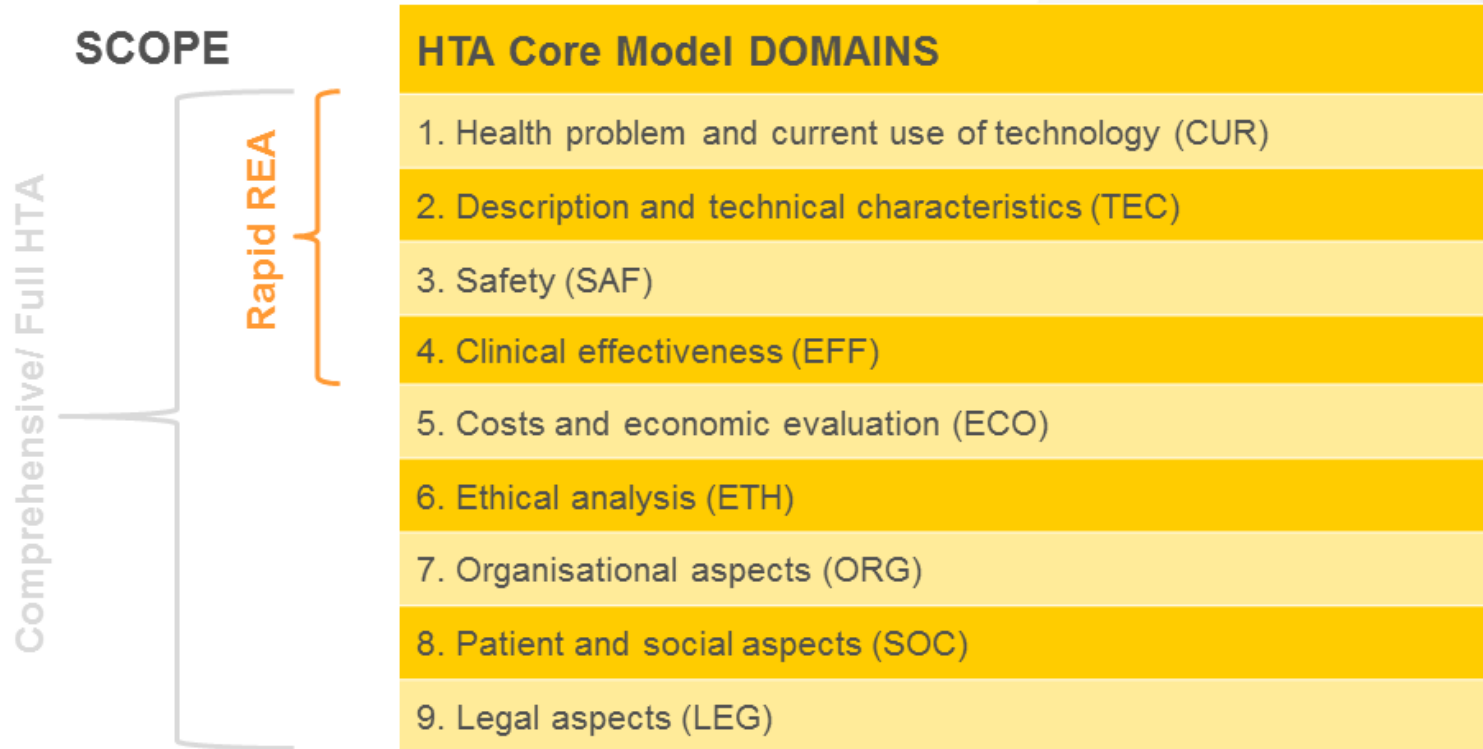
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The Danish Health
Technology Council's
methods guide for the
evaluation of health
technology

The Danish Health Technology Council



EUnetHTA HTA Core Model[®]



The Danish Health Technology Council

- **Analysis:**

- Cost analysis $= C1 - C2$
- Cost-effectiveness analysis $= \frac{C1-C2}{E1-E2} = ICER$
- Cost-utility analysis : $= \frac{C1 - C2}{QALY1 - QALY2} = ICER$

- **Comparator = Usual care**

- **Data: Clinical study (RCT) or model based**

- **Perspective:** Limited societal perspective : Health care + social care + patient time

The reasons behind

1. "Value for money"

- best possible treatments and health for the money



The reasons behind

Knæ-robot i skammekrogen



Caspar ved præsentationen i august. Nu er han faldet lidt i unåde - men bestemt ikke opgivet.

HOVSA-FRÆS: Faaborg Sygehus' Caspar taget ud af drift efter operations-uheld

2. Safety



Lessons learned from research - Many disappointments ...

Anne Sorknæs et al. (2013):

- Home monitoring - COPD
- RCT (n = 266)
- No impact on admissions
- No impact on mortality
- High increase in costs

Anna Leena Vuorinen (2015)

- Home monitoring – CHF and diabetes
- RCT (n = 517)
- No impact on QALY
- No impact on clinical outcomes

Isabelle Manrey (2017)

- Home monitoring - diabetes, COPD, CHF
- RCT (n = 302)
- No impact on QALY
- High increase in costs

Sabrina S Sørensen (2017)

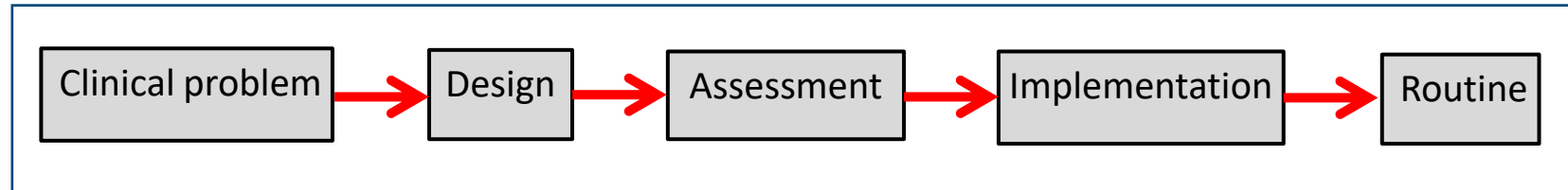
- Case management and home monitoring – COPD
- RCT (n = 150)
- No impact on QALY
- Increase in costs



Lesson no. 1: Consider the whole innovation process

Assessment

Lesson no. 1: Consider the whole innovation process



Lesson no. 2: Be comprehensive in selection of outcomes

Multidisciplinary assessment (domains):

1. Health problem and characteristics of the application
2. Safety
3. Clinical effectiveness
4. Patient perspectives
5. Economic aspects
6. Organisational aspects
7. Socio-cultural, ethical and legal aspects

RESEARCH/Methods

The Model for Assessment of Telemedicine (MAST): A scoping review of empirical studies

**Kristian Kidholm¹, Jane Clemensen¹, Liam J Caffery²
and Anthony C Smith²**

Lesson no. 2: Be comprehensive in selection of outcomes

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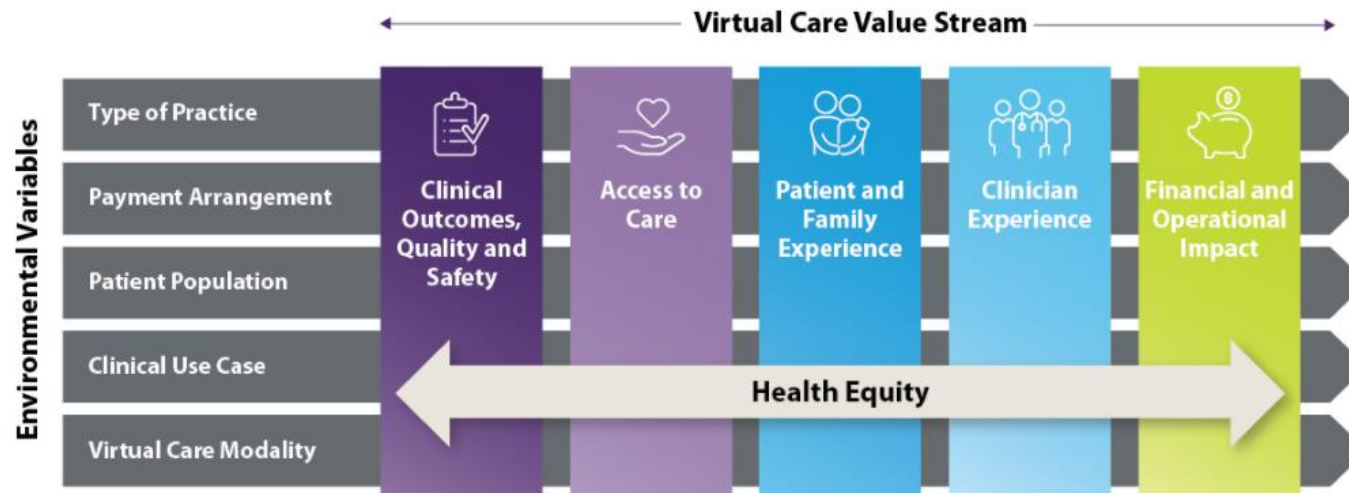
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Measuring beyond dollars and cents



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Include more than clinical outcomes

- Organisational impact?
- Economic impact?
- Patient perception?

Should patient perspectives be the primary outcome?

- Improved patient satisfaction?
- Improved empowerment?
- Improved self-efficacy?
- Changing the doctor-patient relation?

RESEARCH/Methods

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Lesson no 3. The level of evidence needed?

Cohort study

Patients after implementation

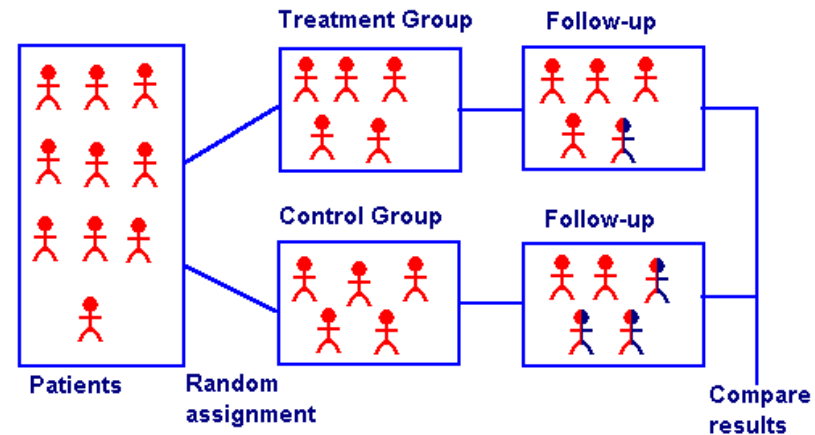
Observational study

Patients before implementation

Patients after implementation



Randomised Controlled Trial



Lesson no 3. The level of evidence needed?



16

Liu and Wyatt. "The case for RCTs to assess the impact of clinical information systems." *Journal of the American Medical Informatics Association* 18.2 (2011): 173-180.

Lesson no 3. The level of evidence needed?



17

Liu and Wyatt. "The case for RCTs to assess the impact of clinical information systems." *Journal of the American Medical Informatics Association* 18.2 (2011): 173-180.

Conclusion

1. Digital health technologies will fundamentally change our health care systems
2. But scientific studies are needed to ensure that technologies give value for money
3. Not sufficient to assess clinical outcomes in a RCT – consider other designs and outcomes

Thank you!

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