Georg Marckmann[1], Corinna Klingler[1], Jürgen in der Schmitten[2]

[1]Institute of Ethics, History and Theory of Medicine, Ludwig-Maximilians-University of Munich, Germany

[2]Institute of General Practice, University Hospital of Düsseldorf, Germany

The economics of advance care planning: Empirical data and ethical implications

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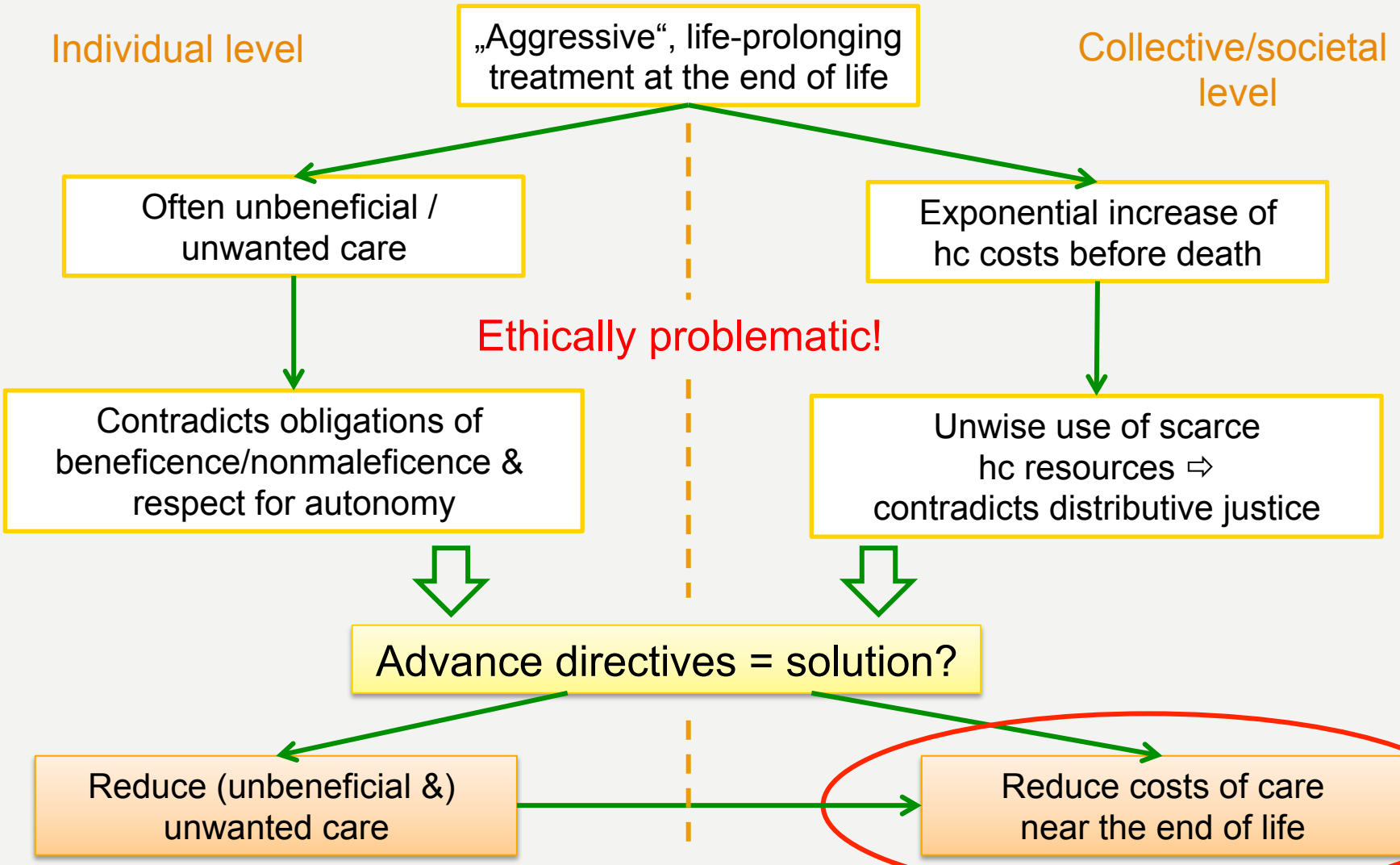
Background


Individual level
„Aggressive“, life-prolonging treatment at the end of life
Collective/societal level
Often unbeneficial / unwanted care
Exponential increase of hc costs before death
Ethically problematic!
Contradicts obligations of beneficence/nonmaleficence & respect for autonomy
Unwise use of scarce hc resources ⇨ contradicts distributive justice
Advance directives = solution?
Reduce (unbeneficial &) unwanted care
Reduce costs of care near the end of life

Two questions…

(1) Empirical question:

Does the increasing use of ADs reduce cost of care?

⇨ No convincing evidence so far

⇨ Potential reason: No *systemic* ACP intervention

⇨ Does ACP reduce cost of EOL-care?

⇨ Systematic Review: Cost implications of ACP

(2) Normative question:

If ACP reduces costs: Should it be an *explicit goal* of ACP?

⇨ Ethical & political discussion

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Some methodological challenges upfront….

Challenge

What qualifies as an "ACP-program"?
- No universally accepted standard of required elements of an ACP-program
- High variability of ACP-approaches

Our approach

Required elements of ACP-program
- Discussion & plan of future hypothetical medical situation
- Facilitated by a qualified hc professional
- Systemic, regional implementation

Remaining challenges

Open questions
- Qualification of facilitators?
- Structure & content of planning process?
- Elements of systemic implementation?

Some methodological challenges upfront….

Economic evaluation

Effects / Benefits

- Quantitative measure of ACP-effectiveness?

⇨"honor patients' well-informed preferences"

- May result in shorter life-time
  ⇨ loss of QALYs
  ⇨ negative health benefit?!?
- No CEA/CUA of ACP so far!

⇩

Included:
also cost-minimization studies

Challenges

Our approach

Costs

- Perspective: Institution? Payer? Societal?
- Many studies assess resource consumption (hospitalization, hospital days, hospice use)
- Comprehensive overall *cost* assessment necessary (cave *cost shifting*!)

⇩

Included: only studies w/ outcome *cost of care*, all perspectives

Systematic review: Objective & search strategy

Objective: To examine the economic implications of ACP

Research question according to PICO:

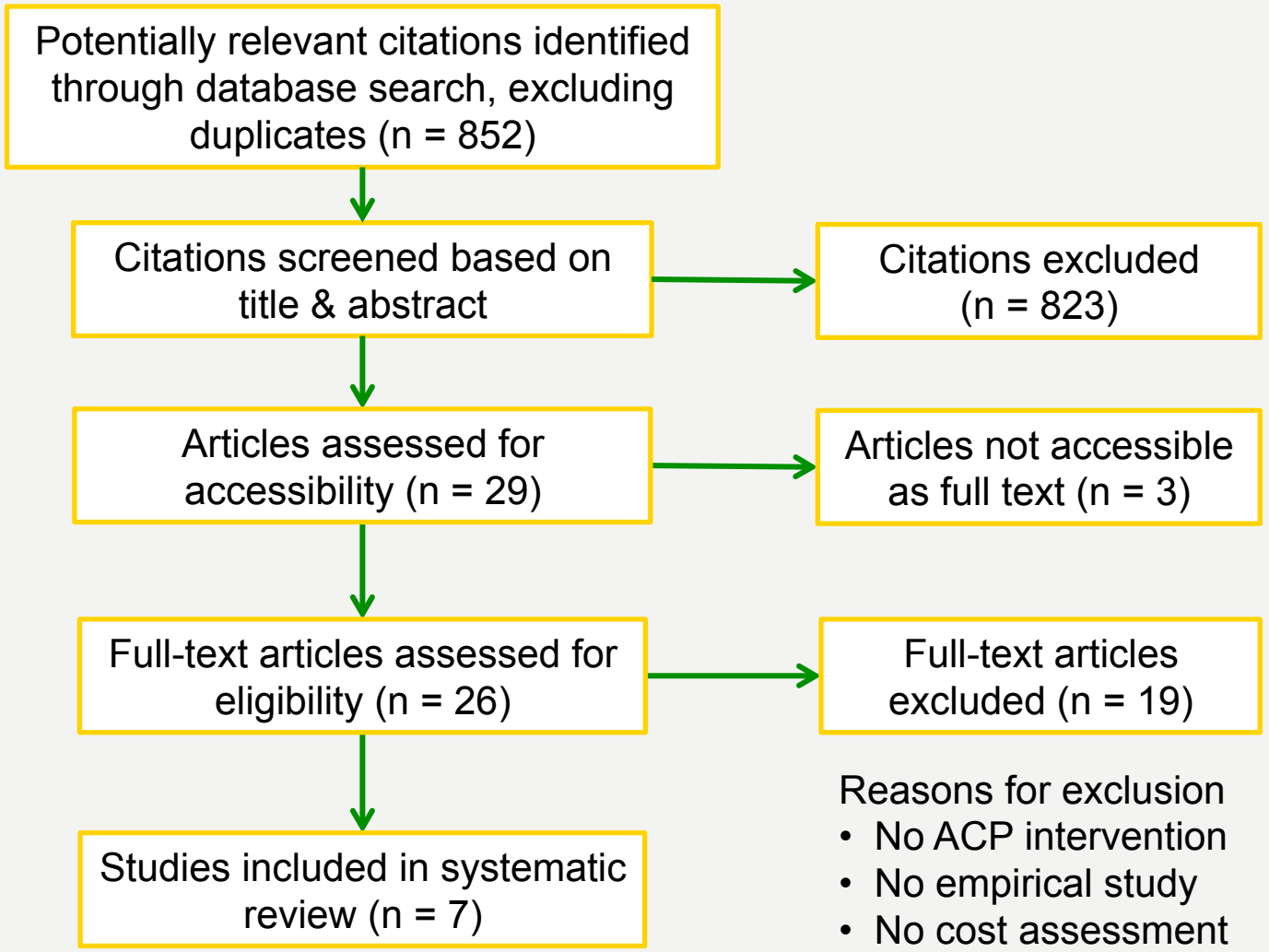
P(atients) = all patient groups
I(ntervention) = ACP
C(omparator) = usual care
O(outcome) = costs of care

Search strategy:
(advanced care planning OR synonym)
AND
(costs OR synonym)

Synonyms for ACP used:
resuscitation order*, advance(d) directive*, living will*, end-of-life decision*, end-of-life conversation*, end-of-life discussion*
Synonym for costs used:
price* , economic*, resource*, efficien*
Or further terms found in the thesaurus…

Databases searched:
(1) Pubmed
(2) NHS EED
(3) EURONHEED
(4) Cochrane Library
(5) EconLit
Plus: references of includes articles included

Systematic review (3)



Reasons for exclusion
- No ACP intervention
- No empirical study
- No cost assessment

Results (1)

General findings

- Only 1 study with *comprehensive ACP-intervention* including systemic/regional implementation [Malloy et al. 2000]!
- Interventions often poorly defined ("discussions about advance directives") ⇨ "fuzzy" boundary of ACP
- ACP: often one element in a more comprehensive approach to improve end-of-life care
  ⇨ impossible to assess *specific* effect of ACP
- No real cost-*effectiveness* studies ⇨ just *cost*-minimization studies comparing care with and without ACP

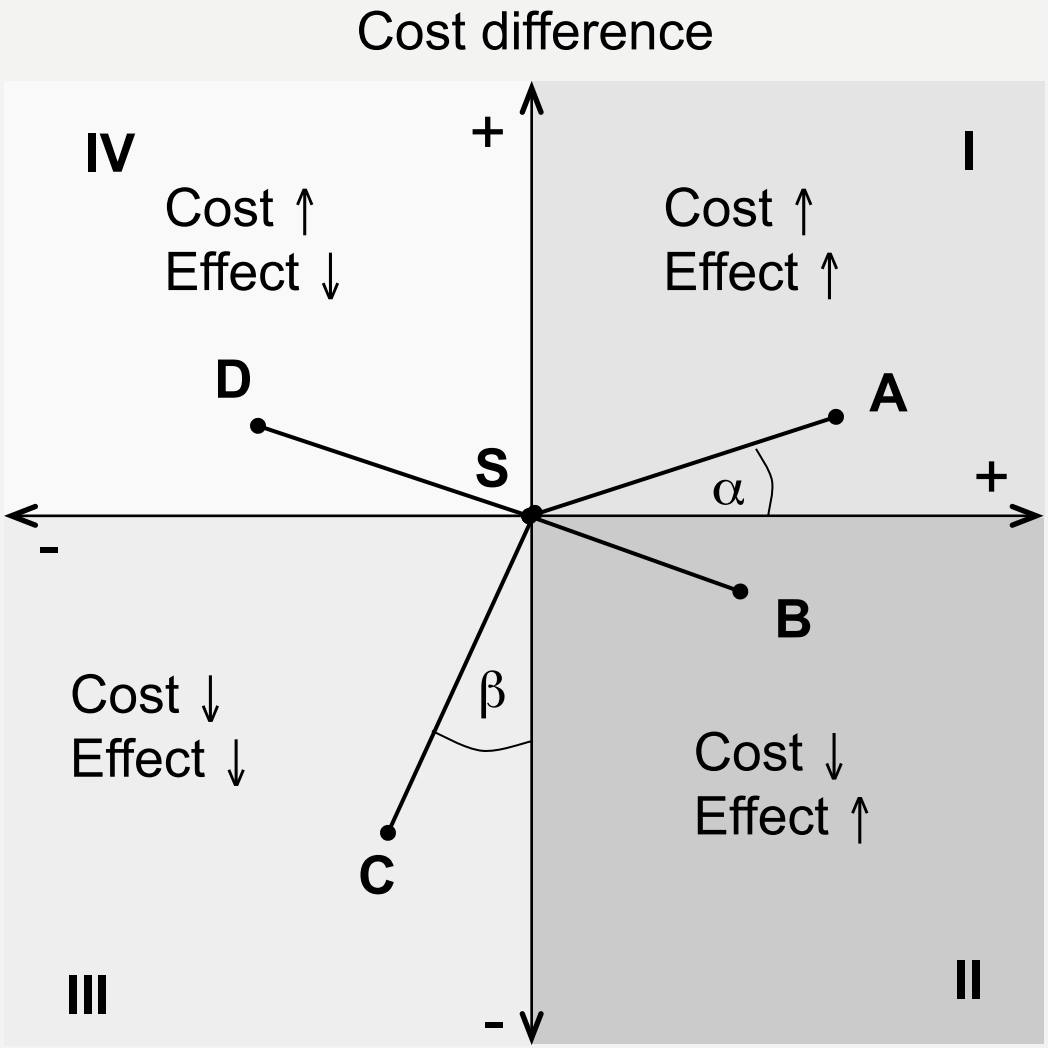
⇨ comprehensive ACP-programs have never been subject to a formal cost-effectiveness analysis!

Results (2)

Article	Intervention	Study Type	Cost measure	Findings	Trend
Malloy et al. 2000	Let Me Decide AD program	RCT	Average total costs per patient (18m)	Can$ 3,490 (LMD) vs. Can$ 5,239 (C)	↓
Chambers et al. 1994	Ø (documented AD discussion)	Observational study	Total charges of last hospitalization	$30,478 (AD) vs. $95,305 (C)	↓
SUPPORT Study 1995	Skilled nurse ⇨ facilitate ACP	Cluster-RCT	Modeled based on Therapeutic Intervention Score	Adjusted resource use ratio 1.05	=
Engelhardt et al. 2006	Advanced Illness Coordinated Care Program (AICCP)	Cluster-RCT	Health care costs (3 m) (n=169!)	$12,123 (AICCP) vs. 16,295 (C) **n.s.!**	(↓)
Edes et al. 2006	Home-based Primary Care ⇨ "AD discussion"	Longitudinal study	Health care costs (6 m) (n=43!)	Net cost-savings §1,873 per patients	↓
Zhang et al. 2009	Ø (has MD discussed EOL-wishes?)	Observational study	Medical costs in last week of life	$1,876 (EOL-disc.) vs. $2,917 (C)	↓
Hamlet et al. 2010	Telephonic EOL-counseling	RCT	Medicare costs	$40,363 (EOL-C.) vs. (C) $42,276	↓

ACP & costs: Potential outcomes

Inefficient ⇨ **ethically not acceptable!**



Ethically justified (Even with large α? ⇨ burden of justification increases w/ α)

Ethically not acceptable! (Priority of pt autonomy over efficiency - even w/ small β?)

Efficiency gain ⇨ **ethically mandated!**

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Ethical implications

Possibility to reduce costs ⇨ financial incentive to do ACP with a desired outcome (depends on perspective!)

⇨ contradicts fundamental principle of ACP: *openness* of communicative process

⇨ *conflict of interest!!*

EOL-care preferences often not well developed ⇨ makes ACP process especially *vulnerable* to external influences!

Validity of documented preferences difficult to assess!

Practical implications:

(1) Primary objective of ACP must be to honor patients' wishes
- at lower costs ⇨ happily welcome!
- at higher costs ⇨ still valuable use of resources (within certain limits?)

(2) Quality of facilitation process is of utmost importance
- qualification, certification & supervision of facilitators
- defined structure and content of facilitation process

Conclusions

Empirical question

- Cost-effectiveness of comprehensive ACP-programs has not been investigated so far
- Cost-minimization studies ⇨ *trend* to reduced costs due to less hospital admissions and hospital days
- Large variability of results [cf. Nicholas et al. JAMA 2011]
- No comprehensive cost-assessment in most studies, payer perspective! (e.g. costs for n/h-stay, out-of-pocket payments are neglected)
- Further studies ⇨ clarify the required elements of an ACP-program

Normative question

- Primary objective of ACP: honor patients' well informed wishes ⇨ measure for success
- Safeguard against "financial infection" of ACP-process: quality of facilitation process ⇨ elicitate patients' *true* preferences