The anthropological value of nutrition: ethical challenges at the end of life

M. Planas (ES)
The anthropological value of nutrition: ethical challenges at the end of life

M. Planas, MD. Barcelona. Spain
- Ethical dilemmas
- Bioethical principles
- Application of bioethical principles to “Nutrition at the end-of-life”
- The decision-making process
Ethical dilemmas

- Bioethical principles
- Application of bioethical principles to “Nutrition at the end-of-life”
- The decision-making process
ETHICAL DILEMMA

• A perplexing situation, in which a choice has to be made between more than one option
The options are not all black or all white, but mostly fall into grey areas.

REASONS FOR ETHICAL DILEMMAS

There is a big difference between what can be done and what should be done. The decision will be choosing a better option over a less desirable one.
246 consecutive palliative patients admitted to the National Taiwan University Hospital

**Table 2**
Types and frequency of ethical dilemmas during hospitalisation assessed by health care workers

<table>
<thead>
<tr>
<th>Ethical dilemma</th>
<th>N</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place of care</td>
<td>82</td>
<td>(33.3)</td>
</tr>
<tr>
<td>Truth-telling</td>
<td>79</td>
<td>(32.1)</td>
</tr>
<tr>
<td>Hydration and nutrition</td>
<td>62</td>
<td>(25.2)</td>
</tr>
<tr>
<td>Therapeutic strategy</td>
<td>61</td>
<td>(24.8)</td>
</tr>
<tr>
<td>Use of medications</td>
<td>47</td>
<td>(19.1)</td>
</tr>
<tr>
<td>Blood transfusion</td>
<td>18</td>
<td>(7.3)</td>
</tr>
<tr>
<td>Terminal sedation</td>
<td>18</td>
<td>(7.3)</td>
</tr>
<tr>
<td>Alternative treatment</td>
<td>11</td>
<td>(4.5)</td>
</tr>
</tbody>
</table>

Total patients: 246

*Journal of Medical Ethics 2000;26:353–357*
**Top 10 health care ethics challenges facing the public: views of Toronto bioethicists**

Jonathan M Breslin*¹, Susan K MacRae¹, Jennifer Bell¹, Peter A Singer¹,² and the University of Toronto Joint Centre for Bioethics Clinical Ethics Group

<table>
<thead>
<tr>
<th>Rank</th>
<th>Scenario</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Disagreement between patients/families and health care professionals about treatment decisions</td>
<td>113</td>
</tr>
<tr>
<td>2</td>
<td>Waiting lists</td>
<td>102</td>
</tr>
<tr>
<td>3</td>
<td>Access to needed health care resources for the aged, chronically ill and mentally ill</td>
<td>89</td>
</tr>
<tr>
<td>4</td>
<td>Shortage of family physicians or primary care teams in both rural and urban settings</td>
<td>82</td>
</tr>
<tr>
<td>5</td>
<td>Medical error</td>
<td>76</td>
</tr>
<tr>
<td>6</td>
<td>Withholding/withdrawing life sustaining treatment in the context of terminal or serious illness</td>
<td>56</td>
</tr>
<tr>
<td>7</td>
<td>Achieving informed consent</td>
<td>43</td>
</tr>
<tr>
<td>8</td>
<td>Ethical issues related to subject participation in research</td>
<td>40</td>
</tr>
<tr>
<td>9</td>
<td>Substitute decision-making</td>
<td>38</td>
</tr>
<tr>
<td>10</td>
<td>The ethics of surgical innovation and incorporating new technologies for patient care</td>
<td>21</td>
</tr>
</tbody>
</table>

*BMC Medical Ethics 2005, 6:5 doi:10.1186/1472-6939-6-5*
What to do if a patient presents gradual decline in the ability/interest to take food and fluids?
Adding the burdens that this treatment represents
Adding the dire consequences of hunger and thirst, and the feeling by the family to let the patient die of starvation
The patient is being hand fed with the goal of maximizing comfort, not maximizing oral intake.

Palecek EJ and Brauner DJ. JAGS 2010; 58:580-584
Bryon et al, examined nurses attitudes towards ANH at the end-of-life by means of an extensive literature review.

To establish **guidelines and policies** that can help nurses to provide the most humane possible care at the end-of-life.

Bryon, 2008
Attitudes towards artificial food and fluids administration in terminally ill patients

ARGUMENTS FOR

• Ethical/legal:
  – Respect for autonomy
  – Sanctity of life
  – Withdrawn without patient or family consent

• Clinical:
  – Way of providing medication

• Social/professional:
  – If patients’s family request it or if the medical head orders it

ARGUMENTS AGAINST

• Ethical/legal:
  – Patient’s comfort and quality of life

• Clinical:
  – Terminally ill patients did not feel as distressed from dehydration as healthy patients

• Social/professional:
  – Medical costs

Bryon, 2008
Ethical dilemmas

**Bioethical principles**

Application of bioethical principles to “Nutrition at the end-of-life”

The decision-making process
Hippocratic Oath

• **Beneficence**: doing what is best for the individual patient
• **Non-maleficence**: the obligation to avoid causing harm
Extension of the principles of medical ethics: causal factors

- **Scandals** related to human experimentation in World War II
- **Development** of techniques of life support
- Need for **resources**’s distribution
- Development of **civil rights**
Bioethical principles

- Beneficence
- Non-maleficence
- Justice
- Autonomy

Hippocrates (460-375 B.C.)

Beauchamp/Childress (1979)
Bioethical principles

• **Beneficence**: the obligation to do what is the best for the individual patient

• **Non-maleficence**: the obligation to avoid causing harm

• **Justice**: obligation of fairness in the distribution of benefits and risks

• **Autonomy**: the obligation to respect the decision making capacities of autonomous person
- Ethical dilemmas
- Bioethical principles
- Application of bioethical principles to “Nutrition at the end-of-life”
- The decision-making process
Principle of Beneficence

The obligation to do what is the best for the individual patient
At the end-of-life, what is the best for the patient?:

To feed?

Not to feed?
Artificial nutrition and hydration in the last week of life in cancer patients. A systematic literature review of practices and effects

N. J. H. Rajmakers¹,²*, L. van Zuylen², M. Costantini³, A. Caraceni⁴, J. Clark⁵, G. Lundquist⁶, R. Voltz⁷,⁸, J. E. Ellershaw⁹ & A. van der Heide¹ on behalf of OPCARE9

Articles reviewed

- Bruera E, 1998
- Cerchietti L 2000
- Chiu TY, 2002
- Goncalves JF, 2003
- Morita T, 2003
- Lanuke K, 2004
- Morita T, 2005
- Masuda Y, 2006
- Morita T, 2006
- Oh DY, 2007

Conclusions

- Current literature suggests that the benefits of providing AH are limited and do not clearly outweigh the burdens
- Evidence concerning the effects on continuing or withdrawing AN in the last days of life is lacking
- Little is known concerning the life shortening of either AN or AH
Brody and cols, undertook a focused, selective review of literature about ANH in terminal illness:

**Articles reviewed**

- Finucane, 1999
- Gillick, 2000
- Sanders, 2000
- McClave, 2003
- Murphy, 2003
- Dy, 2006
- Ganzini, 2006
- Cervo, 2006
- Garrow, 2007
Conclusions

• In general, ANH was futile

• No evidence showed extension of life or improved quality of life with ANH

J Gen Intern Med 26(9):1053–8
DOI: 10.1007/s11606-011-1659-z
© Society of General Internal Medicine 2011
• Analyzing the evaluation (from day 4 to baseline, and from day 7 to baseline) of global dehydration symptoms (fatigue, myoclonus, sedation and hallucinations) and overall survival.
• Two groups of 129 patients with advanced cancer
  • Control group: received 1000 ml saline/day
  • Placebo: received 100 ml saline/day
### Table 3. Global Symptom Evaluation Between the Hydration Group and Placebo Group

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Change Between Day 4 and Baseline</th>
<th>Change Between Day 7 and Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hydration (n = 36)</td>
<td>Placebo (n = 39)</td>
</tr>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Better</td>
<td>20</td>
<td>56</td>
</tr>
<tr>
<td>Same</td>
<td>14</td>
<td>39</td>
</tr>
<tr>
<td>Worse</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>

*Fisher’s exact test.
Parenteral Hydration in Patients With Advanced Cancer: A Multicenter, Double-Blind, Placebo-Controlled Randomized Trial

Eduardo Bruera, David Hui, Shalini Dalal, Isabel Torres-Vigil, Joseph Trumble, Joseph Roosth, Susan Krauter, Carol Strickland, Kenneth Unger, J. Lynn Palmer, Julio Allo, Susan Frisbee-Hume, and Kenneth Tarleton

![Graph showing overall survival proportion over time for Placebo (100 mL per day) and Hydration (1,000 mL per day).]

BENEFICENCE
Doing what is the best for the patient

- ANH to alleviate dehydration symptoms in dying patients may be futile
Principle of Non-maleficence

Primum non nocere

“The obligation to avoid causing harm”
Is tube feeding or parenteral nutrition/hydration safe?

Potential side effects of tube feeding:
- Diarrhea
- Nausea
- Vomiting
- Esophageal perforation
- Bronchial aspiration

An intravenous infusion can cause:
- Infection
- Phlebitis
- Electrolyte imbalance

Physical restraints are distressing and often increase patient agitation. It is very important to avoid physical restraints.
Association between hydration volume and symptoms in terminally ill cancer patients with abdominal malignancies

- Multicenter, prospective, observational study
- 226 consecutive terminally ill patients
- Two groups: hydration group (59), and non-hydration group (157)
- Mean hydration volume received:
  - Hydration group (from 838-1405 ml/day)
  - Non-hydration group (200 ml/day)

Association between hydration volume and symptoms in terminally ill cancer patients with abdominal malignancies

Open circles hydration group (59), filled circles non-hydration group (167)

Is fasting at the end-of-life safe?

Possible symptoms of malnutrition and dehydration:

- Hunger
- Thirst
- Dry mouth
- Fatigue
- Headache
- Nausea
- Vomiting
- Abdominal cramps
Data available about symptoms of hunger and thirst in terminally ill patients
Frequency of symptoms of hunger and thirst in terminally ill patients

- **Mc Cann and cols**, performed a
- Prospective evaluation of 32 consecutive competent patients with terminal illnesses
- Monitored from time of admission to time of death

McCann, 1994
## Frequency of symptoms of hunger and thirst in terminally ill patients

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Subjects n (%)</th>
<th>Consumption Normal</th>
<th>Consumption Reduced</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hunger</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None present</td>
<td>20 (63)</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>Present only initially</td>
<td>11 (34)</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Present until death</td>
<td>1 (3)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Thirst or dry mouth</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None present</td>
<td>11 (34)</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Present only initially</td>
<td>9 (28)</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Present until death</td>
<td>12 (38)</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>

McCann, 1994
Ellershaw and cols, studied
The relationship between symptoms and dehydration
82 terminally ill patients with cancer
Two groups: presence or not of dehydration
Dehydration: assessed through serum biochemistry
Symptoms: respiratory tract secretions, thirst and dry mouth

Ellershaw, 1995
### Relationship between symptoms and dehydration

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>No dehydrated</th>
<th>Dehydrated</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 21</td>
<td>n = 61</td>
<td></td>
</tr>
<tr>
<td>Respiratory tract secretions</td>
<td>100%</td>
<td>89%</td>
<td>NS</td>
</tr>
<tr>
<td>Do you have a dry mouth?</td>
<td>71%</td>
<td>93%</td>
<td>NS</td>
</tr>
<tr>
<td>Do you feel thirsty?</td>
<td>86%</td>
<td>68%</td>
<td>NS</td>
</tr>
</tbody>
</table>

Ellershaw, 1995
The sensation of thirst in dying patients receiving iv hydration

No relations between level of thirst:

- Amount of fluids received
- Blood urea nitrogen
- Sodium blood levels

Musgrave CF. J Palliat Care 1995
The **physiology of fasting** may provide an explanation for the relative comfort these patients exhibited **despite** **severe protein calorie malnutrition** and eventual **dehydration**.
STARVATION

↑ Lipolysis

↑ Ketone production

↑ β Endorphin (hypotalam)

DEHYDRATION

↑ Opioids (hypotalam)

ANALGESIA

• Patients with terminal illness can experience comfort, despite minimal if any intake of food or fluids, as long as:
  • **Mouth care** was provided and
  • **Thirst alleviated** with sips of water or ice
NON-MALEFICENCE
The obligation to avoid harm

• Over hydration in dying patients could deteriorate fluid retention symptoms
• Patients with terminal illness can experience comfort, despite minimal if any intake
Principle of Autonomy
Autonomy

• The ability and right of individuals to make decisions for themselves
• People are autonomous in their decision-making if:
  • They know and understand the situation and different choices
  • Decide voluntarily without influence or coercion
Advance Directives

Advanced care directives are **specific instructions**, prepared **in advance**, that are intended to direct a person's medical care if she/he becomes unable to do so in the future.

- Helps to overcome problems created by family disagreements, cultural and religious differences between caregivers, physicians and patients.

*Monteleoni C. BMJ 2004;329:491-4*
No Advance Directives available

• Give priority to the previously expressed wishes of patients
• Be guided by what patients would choose if they were competent
• Follow directives in the patient's best interest

Buchanan A. Milbank Q 1986;64 (Suppl 2):17-94

• If there is a disagreement: approach Ethical Committee for advice
Advance Directives

• They are seldom completed (US survey 2005: 25%)
• Often not available when needed
• The request made in the document are frequently overridden because it could be made with ignorance and out of context

Advance Directives and Outcomes of Surrogate Decision Making before Death

Maria J. Silveira, M.D., M.P.H., Scott Y.H. Kim, M.D., Ph.D., and Kenneth M. Langa, M.D., Ph.D.

- Data from survey in the Health and Retirement Study
- Involving adults 60 years of age or older
- Who died between 2000 and 2006
- To determine the prevalence of the need for decision making
- To test the association between preferences documented in advance directives and outcomes

Advance Directives and Outcomes of Surrogate Decision Making before Death

Maria J. Silveira, M.D., M.P.H., Scott Y.H. Kim, M.D., Ph.D.,
and Kenneth M. Langa, M.D., Ph.D.

CONCLUSIONS

Between 2000 and 2006, many elderly Americans needed decision making near the end of life at a time when most lacked the capacity to make decisions. Patients who had prepared advance directives received care that was strongly associated with their preferences. These findings support the continued use of advance directives.

Western principle of autonomy:
  • Demands self-determination
  • Promotes the value of individual independence

East Asian principle of autonomy:
  • Requires family determination
  • Upholds the value of harmonious dependence

Fan R. Theor Med Bioeth 2011
Evaluation of end of life care in cancer patients at a teaching hospital in Japan

Y Tokuda, N Nakazato, K Tamaki

- Tokuda and cols, analyzed
- The decision making for end of life care
- 124 terminally ill cancer patients
- At a teaching hospital in Japan
- At two periods 10 years apart
### Evaluation of end of life care in cancer patients at a teaching hospital in Japan

Y Tokuda, N Nakazato, K Tamaki

<table>
<thead>
<tr>
<th></th>
<th>1989</th>
<th>1999</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informed of having cancer</td>
<td>0 (%)</td>
<td>8.2 (%)</td>
<td>0.02</td>
</tr>
<tr>
<td>DNR order</td>
<td>88.9 (%)</td>
<td>93.4 (%)</td>
<td>0.53</td>
</tr>
<tr>
<td>TPN</td>
<td>10 (%)</td>
<td>13 (%)</td>
<td>0.58</td>
</tr>
<tr>
<td>Albumin ev</td>
<td>6 (%)</td>
<td>8 (%)</td>
<td>0.74</td>
</tr>
<tr>
<td>Tube feeding</td>
<td>8 (%)</td>
<td>8 (%)</td>
<td>0.99</td>
</tr>
</tbody>
</table>
Zheng and cols, examined

• The racial disparities at the end-of-life
• 49,048 long-term-care residents
• Two groups: black and white
• In 555 NY State nursing homes
• Who died during 2005-2007

Zheng, 2011
### Racial Disparities in In-Hospital Death and Hospice Use Among Nursing Home Residents at the End-of-life

<table>
<thead>
<tr>
<th>Residents</th>
<th>Black</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-Hospital Death (%)</td>
<td>40.33</td>
<td>24.07</td>
</tr>
<tr>
<td>Hospice Use (%)</td>
<td>11.55</td>
<td>17.39</td>
</tr>
<tr>
<td>Feeding tubes (%)</td>
<td>31.12</td>
<td>10.08</td>
</tr>
<tr>
<td>DNR (%)</td>
<td>41.21</td>
<td>75.45</td>
</tr>
<tr>
<td>DNH (%)</td>
<td>2.61</td>
<td>7.82</td>
</tr>
</tbody>
</table>

DNR: Do-Not-Resuscitate  
DNH: Do-Not-Hospitalize

Zheng, 2011
The Influence of Culture on End-of-Life Decision Making
Karen Bullock

- This study examined influence of culture on end-of-life decision making
- Data from participants interviewed using semistructured interviews and focus groups discussions
- Black and White older US adults volunteered to participate

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>White participants</th>
<th>Black participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural values</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individualism</td>
<td></td>
<td>Collectivism</td>
</tr>
<tr>
<td>Independence</td>
<td></td>
<td>Interdependence</td>
</tr>
<tr>
<td>Cultural beliefs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Views of autonomy</td>
<td>“Master of my fate”</td>
<td>“Fate of my master”</td>
</tr>
<tr>
<td>Advance directives</td>
<td>Written</td>
<td>Oral</td>
</tr>
</tbody>
</table>
### PRINCIPLE

**BENEFICENCE:**
Doing what is the best for the patient

**NON-MALEFICENCE:**
The obligation to avoid causing harm

**AUTONOMY:**
The patient’s right to self-determination

### APPLICATION TO END-OF-LIFE CARE

- ANH to alleviate dehydration symptoms in dying patients may be futile
- Over hydration in dying patients could deteriorate fluid retention symptoms
  - Patients with terminal illness can experience comfort, despite minimal if any intake
- Dialogue should be encouraged and advance directives if patient’s decision making capacity is lost
Ethical dilemmas
Bioethical principles
Application of bioethical principles to “nutrition at the end-of-life”
The decision-making process
What to do if a patient presents gradual decline in the ability/interest to take food and fluids?
Patients who are approaching the end of their life need **high-quality treatment and care** that **support them** to live as well as possible until they die, and **to die with dignity**

Providing treatment and care towards the end of life often involve decisions that are **clinically complex** and **emotionally distressing**

www.gmc-uk.org/guidance
Guidelines on Artificial Nutrition Versus Hydration in Terminal Cancer Patients

• Expert committee of clinicians from different specialities involved in the care of terminal cancer patients
• Sponsored by the European Association for Palliative Care
The decision-making process

1. To define conflict of values (cultural, religious, legal)
2. To analyze clinical aspects and expected length of survival
3. To weight the benefits, burdens and risks of treatment
4. To find the patient’s preferences
5. To identify who has the capacity to take decisions
6. To make a decision and put it into practice
7. Reevaluation of the patient and therapy at specified intervals

Modified from Bozzetti, Nutrition 1996
The decision-making process

- To define conflict of **values** (cultural, religious, legal)
- To analyze **clinical** aspects
- To weight the **benefits, burdens and risks** of treatment
- To find the **patient’s preferences**
- To identify **who has the capacity** to take decisions
- To **make a decision** and put it into practice
- **Periodically,** reassessment
Questions

• Is nutrition at the end-of-life, a basic human care?

• All cultures/religions believe that artificial nutrition and hydration are a treatment?

• Those who consider ANH a treatment, believe that at the end-of-life it is:
  • ordinary treatment?
  • extraordinary treatment?
  • futile treatment?
Questions

• Is nutrition at the end-of-life, a basic human care?

• All cultures/religions believe that artificial nutrition and hydration are a treatment?

• Those who consider ANH a treatment, believe that at the end-of-life it is:
  • ordinary treatment?
  • extraordinary treatment?
  • futile treatment?
Jewish ethical guidelines for resuscitation and artificial nutrition and hydration of the dying elderly

**Judaism: Infinite value to life**

In reference to ‘tube-feeding’, while there is some debate about whether elderly patients may refuse the initiation of ‘tube-feeding’, there is a consensus that once initiated, it may not be withdrawn.

*Journal of medical ethics* 1994; 20: 93–100
From the perspective of Islam, rules governing the care of terminally ill patients are derived from the principle that injury and harm should be prevented or avoided.

Although Islamic law permits the withdrawal of futile, death-delaying treatment, including life support, the hastening of death by the withdrawal of food and drink is forbidden.
Questions

• Is nutrition at the end-of-life, a basic human care?

• All cultures/religions believe that artificial nutrition and hydration are a treatment?

• Those who consider ANH a treatment, believe that at the end-of-life it is:
  • ordinary treatment?
  • extraordinary treatment?
  • futile treatment?
Artificial administration of nutrition and fluids is a **medical intervention** subject to the same principles of decision making as other treatments.
Questions

• Is nutrition at the end-of-life, a basic human care?

• All cultures/religions believe that artificial nutrition and hydration are a treatment?

• Those who consider ANH a treatment, believe that at the end-of-life it is:
  • ordinary treatment?
  • extraordinary treatment?
  • futile treatment?
...“For instance, as a patient draws close to inevitable death from an underlying progressive and fatal condition, certain measures to provide nutrition and hydration may become excessively burdensome and therefore no obligatory in light of the very limited ability to prolong life or provide comfort”
The decision-making process

- To define conflict of values (cultural, religious, legal)
- To analyze clinical aspects
- To weight the benefits, burdens and risks of treatment
- To find the patient’s preferences
- To identify who has the capacity to take decisions
- To make a decision and put it into practice
- Periodically, reassessment
Decisions Near the End of Life: Professional Views on Life-Sustaining Treatments

Mildred Z. Solomon, EdD, Lydia O'Donnell, EdD, Bruce Jennings, MA, Vivian Guilfoyl, MA, Susan M. Wolf, JD, Kathleen Nolan, MD, Rebecca Jackson, BA, Dieter Koch-Weser, MD, PhD, and Strachan Donnelley, PhD

- Survey: 687 physicians and 759 nurses
- In 5 hospitals, located in Massachusetts, Georgia, Washington DC, and California
- To collect baseline data on the knowledge, attitudes, and self-reported practices of professional staff
## Decisions Near the End of Life: Professional Views on Life-Sustaining Treatments

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Disconnecting a feeding tube is killing a patient</td>
<td>12</td>
<td>11</td>
<td>12</td>
<td>9</td>
<td>12</td>
<td>NS</td>
</tr>
<tr>
<td>Even if other treatments support are stopped, food and water (ANH) should always be continued</td>
<td>42</td>
<td>34</td>
<td>45</td>
<td>36</td>
<td>46</td>
<td>&lt;.005</td>
</tr>
<tr>
<td>The burdens of ANH can outweigh the benefits</td>
<td>48</td>
<td>58</td>
<td>54</td>
<td>59</td>
<td>41</td>
<td>&lt;.005</td>
</tr>
</tbody>
</table>

Solomon, 1993
The decision-making process

- To define conflict of **values** (cultural, religious, legal)
- To analyze **clinical** aspects
- To weight the **benefits, burdens and risks** of treatment
- To find the **patient’s preferences**
- To identify **who has the capacity** to take decisions
- To **make a decision** and put it into practice
- Periodically, reassessment
Agnes van der Heide and cols, investigated
- Frequency and characteristics of end-of-life decision making practice
- In six European countries

End-of-life decision-making in six European countries: descriptive study

<table>
<thead>
<tr>
<th>Country</th>
<th>Belgium</th>
<th>Denmark</th>
<th>Italy</th>
<th>Netherlands</th>
<th>Sweden</th>
<th>Switzerland</th>
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<tbody>
<tr>
<td>Number of cases studied</td>
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<td>1355</td>
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<td>22</td>
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<td>92</td>
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</tbody>
</table>

Table 4: Characteristics of decision-making for all types of end-of-life decisions

The decision-making process.

Effective and continuous intercommunication

Planas M. Clin Nutr 2002;21_355-61
Thank-you for your attention