Withholding and Withdrawing Acute Renal Replacement Therapy

Rolando Claure-Del Granado, M.D.
CRRT Conference
February 16, 2012
Withholding and Withdrawing Acute Renal Replacement Therapy

- Moral principles
- Informed consent for RRT
- Three different views of the problem:
  - Patients
  - Relatives
  - Health care workers
- Guidelines
- Limiting treatments not care
Is RRT moral?

- Health care a commercial privilege reserved to those who can pay for it?
- Health care is a basic human right

- Is RRT just a technical act, and does not imply any moral content?
- RRT is more than a mere technical act
  • Attending to a suffering person and doing the most possible to help that person recover *is a moral act*. 
Is RRT moral?

- Health care a commercial privilege reserved to those who can pay for it?
- Health care is a basic human right

- Is RRT just a technical act, and does not imply any moral content?
- RRT is more than a mere technical act
  - Attending to a suffering person and doing the most possible to help that person recover is a moral act.
Is RRT moral?

• Morality ≠ Absolute
  – Patient’s willingness of being cured
  – Expecting reasonable results
  – Accepting the results of treatment
  – View of life
  – Moral and religious beliefs

• Ethical foundation of CRRT
  – Clinical indication
  – Informed consent
  – Compassionate administration
Withholding and Withdrawing Acute Renal Replacement Therapy

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People with chronic renal failure necessitating long-term ambulatory RRT (dialysis) are usually able to be informed and to give valid consent or refusal.

Refusal or discontinuation of dialysis is the cause of approximately 25% of deaths of patients with ESRD.

Valid consent or refusal is not usually possible for the critically ill patient in an intensive care unit (ICU) who requires RRT.

Patients might receive care they would not have chosen and whose aim is inconsistent with their wishes.
Life-Sustaining Treatment Preferences of Hemodialysis Patients: Implications for Advance Directives

Peter A. Singer, Elaine C. Thiel, C. David Naylor, Robert M.A. Richardson, Hilary Llewellyn-Thomas, Marc Goldstein, Carl Saiphoo, P. Robert Uldall, Donald Kim, and David C. Mendelssohn
Patient Age and Decisions To Withhold Life-Sustaining Treatments from Seriously Ill, Hospitalized Adults

Mary Beth Hamel, MD, MPH; Joan M. Teno, MD, MS; Lee Goldman, MD, MPH; Joanne Lynn, MD, MA; Roger B. Davis, ScD; Anthony N. Galanos, MD; Norman Desbiens, MD; Alfred F. Connors Jr., MD; Neil Wenger, MD, MPH; and Russell S. Phillips, MD, for the SUPPORT Investigators

<table>
<thead>
<tr>
<th>Age</th>
<th>Decision Made To Withhold Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ventilator Support (n = 5371)</td>
</tr>
<tr>
<td>&lt;50</td>
<td>18 (219/1220)</td>
</tr>
<tr>
<td>50–59</td>
<td>27 (223/828)</td>
</tr>
<tr>
<td>60–69</td>
<td>29 (375/1313)</td>
</tr>
<tr>
<td>70–79</td>
<td>36 (483/1344)</td>
</tr>
<tr>
<td>≥80</td>
<td>45 (300/666)</td>
</tr>
</tbody>
</table>
Patient Age and Decisions To Withhold Life-Sustaining Treatments from Seriously Ill, Hospitalized Adults

Mary Beth Hamel, MD, MPH; Joan M. Teno, MD, MS; Lee Goldman, MD, MPH; Joanne Lynn, MD, MA; Roger B. Davis, ScD; Anthony N. Galanos, MD; Norman Desbiens, MD; Alfred F. Connors Jr., MD; Neil Wenger, MD, MPH; and Russell S. Phillips, MD, for the SUPPORT Investigators

Table 4. Patient Age and Physicians’ Preferences and Perceptions of Patients’ Preferences for Life-Sustaining Treatment

<table>
<thead>
<tr>
<th>Age</th>
<th>Patient Wants Life-Extending Care (n = 6022)†</th>
<th>Physician Would Want Life-Extending Care if in Patient’s Situation (n = 3223)‡</th>
<th>Physician Thinks That Patient Wants Life-Extending Care (n = 4786)</th>
<th>For Patients Who Want Life-Extending Care, Physician Thinks That Patient Does Not (n = 1564)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;50</td>
<td>61 (772/1271)</td>
<td>48 (325/672)</td>
<td>60 (589/989)</td>
<td>36 (159/446)</td>
</tr>
<tr>
<td>50–59</td>
<td>52 (559/1085)</td>
<td>28 (158/558)</td>
<td>41 (327/798)</td>
<td>50 (156/310)</td>
</tr>
<tr>
<td>60–69</td>
<td>44 (695/1577)</td>
<td>26 (231/878)</td>
<td>34 (438/1278)</td>
<td>61 (239/391)</td>
</tr>
<tr>
<td>70–79</td>
<td>37 (535/1438)</td>
<td>20 (147/724)</td>
<td>25 (290/1178)</td>
<td>70 (222/318)</td>
</tr>
<tr>
<td>≥80</td>
<td>27 (177/651)</td>
<td>8 (33/391)</td>
<td>14 (76/543)</td>
<td>79 (78/99)</td>
</tr>
</tbody>
</table>
# Understanding the Treatment Preferences of Seriously Ill Patients

**Terri R. Fried, M.D., Elizabeth H. Bradley, Ph.D., Virginia R. Towle, M.Phil., and Heather Alloire, Ph.D.**

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>No. of Participants</th>
<th>Scenario 1 — Low Burden, Restoration of Current Health</th>
<th>Scenario 2 — High Burden, Restoration of Current Health</th>
<th>Scenario 3 — Low Burden, Functional Impairment</th>
<th>Scenario 4 — Low Burden, Cognitive Impairment</th>
<th>Percent of Participants Choosing Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>79</td>
<td>100</td>
<td>83.5</td>
<td>27.9</td>
<td>11.4</td>
<td></td>
</tr>
<tr>
<td>Congestive heart failure</td>
<td>66</td>
<td>98.5</td>
<td>93.9</td>
<td>21.2</td>
<td>7.6</td>
<td></td>
</tr>
<tr>
<td>Chronic obstructive pulmonary disease</td>
<td>81</td>
<td>97.5</td>
<td>86.4</td>
<td>25.9</td>
<td>13.6</td>
<td></td>
</tr>
</tbody>
</table>
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• Moral principles

• Three different views of the problem:
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  – Health care workers

• Guidelines

• Limiting treatments not care
Maria and the Good Death: The Latin American View

Claudia V.M. Teles

Maria had been in our intensive care unit (ICU) for 30 days now. She was clearly dying. A uterine cervical cancer victimized her, and as she underwent chemotherapy, hemorrhagic cystitis and perforation of an intestinal wall invaded by the neoplastic cells caught her right in the nadir of chemoinduced neutropenia. She already had bone and liver metastatic disease, and probably lung infection (that was not responding to antibiotics), repeated transfusions, procoagulants, and other support measures. Despite our attempts to make the family aware of her impending death and the futility of further treatment attempts, they refused to accept it. They were extremely religious people and kept on expecting a miracle. The patient was young, 34 years old, and she was leaving a desperate husband with two small children. As bilateral ureteral obstruction and massive hemorrhage supervened, her blood urea started to rise, and we decided not to submit the patient to hemodialysis. The family questioned the decision because they wanted everything to be done, for they were still expecting a miraculous turn of events. They believed that “denying care for a human being is against Christian principles.” It required a team approach to the problem and a series of discussions with several different members of the ICU team — doctors, nurses, social assistants — repeating the same words and ideas:
If we go further in the aggressive therapeutic measures, all we will do is worsen her pain and suffering. She needs rest and peace as there is nothing we can do to her but bring her more pain if we continue treatment. You must accept this and be prepared. We are doing our best to alleviate pain, and make her comfortable, so she will not be aware of what is happening. **God wants no one to suffer on earth** … **Suffering is part of life, however, and we are doing all we can to prevent her suffering.**
Family: making relatives understand the problem

- Key aspects to deal with the family in the previous case:
  - Make them understand the concept of “good death”
  - Persistence and patient
  - Team approach
  - Hearing
  - Using family own arguments to guarantee patient a more human way to end-of-life
  - Understanding the religion background of the family
Family: making relatives understand the problem

- Palliative care emerging new specialty in Latin America
- Many times, terminal patient is admitted only because family is not used to the process of end-of-life
- Patients still undergo procedures like CPR, VM, RRT at family request, and stay long time at ICU beds.

- Challenge → make society comprehend the concept of the “Good Death”
The aim of this study is to examine family members’ experiences of end-of-life decision-making processes in Norwegian intensive care units (ICUs).

1. To ascertain the degree to which they felt included in the decision-making process.
2. Whether they received necessary information.
3. View their role as family members in the decision-making process.

Interviews of 27 bereaved family members of former ICU patients 3–12 months after the patient’s death.

Results
1. Relatives want a more active role in end-of-life decision-making in order to communicate the patient’s wishes.
2. When physicians finally address their decision, there is no time for family participation.
Family members’ experiences of “wait and see” as a communication strategy in end-of-life decisions

27 bereaved family members of 21 patients. Cases separated into two groups based on the participants’ experiences of the decision-making process. Core concept common to both groups: “Wait and see”.

Families not included in decision-making (16 families)

- Intensive Care Unit-period > 4 days < 8 weeks
  - Meetings with clinicians: Few, seldom, randomly arranged.
- Collaboration: No obvious nurse/physician teamwork.
- Communication: Medical facts, details. Little dialogue.
- Physicians: Busy, distant.
- General feelings: Hope/Realism/Ambivalence. Disparate understanding of “wait and see”.

Families experiencing shared decision-making (5 families)

- Intensive Care Unit-period < 4 days.
  - Meetings with clinicians: First proactive, later regular, planned.
- Physicians: Experienced, available, close, compassionate, emotionally supportive.
- Nurses: Friendly, compassionate, supportive. Careful with words. Both clear and vague information.
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Questionnaire survey was sent by e-mail to participants at an international meeting on intensive care medicine.

Respondents were asked to choose 1 of 3 to 5 possible answers for each of 4 questions related to the treatment of a hypothetical patient in a vegetative state due to anoxic encephalopathy after cardiac arrest with no family and no advance directives.

Written do-not-resuscitate orders were preferred in Northern and Central Europe.

Whereas oral orders took preference in Southern Europe, Turkey, and Brazil.
Percentage of respondents in the various regions for question related to the application of do-not-resuscitate (DNR) orders.
Responses to question related to treatment for septic shock in a patient in a vegetative state. A, Physicians who would recommend terminal extubation; B, physicians who would recommend terminal withdrawal of mechanical ventilation; C, physicians who would recommend only antibiotics; and D, physicians who would do everything.
Survey of hypothetical cases about withdrawal of life support

862 Pennsylvanian Internist (56% answered)

Physicians were more willing to withdrawal life support if:

1. Younger
2. Tertiary care center
3. Spent more time in clinical practice
4. Specialist

They will continue life support if:

1. Catholic
2. Jewish

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**TABLE 1—Cumulative Logistic Regression Model of Willingness to Withdraw Life Support**

<table>
<thead>
<tr>
<th>Professional variables</th>
<th>Regression Coefficient ($\chi^2$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attending physicians</td>
<td>0.330 (1.67)</td>
</tr>
<tr>
<td>Percentage clinical time</td>
<td>0.007 (6.06)**</td>
</tr>
<tr>
<td>Intensive care unit patient number</td>
<td>0.001 (0.25)</td>
</tr>
<tr>
<td>General internist</td>
<td>0.379 (2.79)</td>
</tr>
<tr>
<td>Tertiary hospital</td>
<td>0.678 (10.3)**</td>
</tr>
</tbody>
</table>

**Social and demographic variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Regression Coefficient ($\chi^2$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male gender</td>
<td>0.203 (0.73)</td>
</tr>
<tr>
<td>Age</td>
<td>$-0.022 (5.24)^*$</td>
</tr>
<tr>
<td>Catholic</td>
<td>$-0.796 (7.80)^*$</td>
</tr>
<tr>
<td>Jewish</td>
<td>$-0.604 (5.50)^*$</td>
</tr>
<tr>
<td>Other religion</td>
<td>0.037 (0.01)</td>
</tr>
<tr>
<td>Religiosity</td>
<td>$-0.126 (2.98)$</td>
</tr>
</tbody>
</table>
Survey of 443 Jewish physicians from Israeli hospitals (attitudes and communication with patients about end-of-life issues and care practices.

Very religious physicians, moderately religious and secular physicians were much less likely to believe that life sustaining treatment should be withdrawn:

69% vs. 80% vs. 85% (p < 0.01)

Religion was not related to withholding most life-sustaining treatments
Physicians’ Religiosity and End-of-Life Care Attitudes and Behaviors

NEIL S. WENGER, M.D., M.P.H.¹, AND SARA CARMEL, M.P.H., PH.D.²

<table>
<thead>
<tr>
<th>Behavior and Behavioral Intention</th>
<th>Not Religious (n=141)</th>
<th>Moderately Religious (n=262)</th>
<th>Very Religious (n=40)</th>
<th>Total Sample (n=443)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would you order the following life-sustaining treatment for an 80-year-old terminally ill cancer patient?ᵃ Mean (SD)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydration</td>
<td>4.55 (0.9)</td>
<td>4.65 (0.8)</td>
<td>4.57 (0.8)</td>
<td>4.61 (0.9)</td>
</tr>
<tr>
<td>Tube feeding</td>
<td>3.58 (1.6)</td>
<td>3.52 (1.5)</td>
<td>3.37 (1.5)</td>
<td>3.46 (1.5)</td>
</tr>
<tr>
<td>Mechanical ventilation</td>
<td>2.17 (1.4)</td>
<td>2.29 (1.5)</td>
<td>2.35 (1.6)</td>
<td>2.26 (1.5)</td>
</tr>
<tr>
<td>Cardiopulmonary resuscitation</td>
<td><strong>1.53 (1.1)</strong></td>
<td><strong>1.73 (1.2)</strong></td>
<td><strong>2.25 (1.6)</strong></td>
<td><strong>1.71 (1.2)</strong></td>
</tr>
<tr>
<td>Do you ever stop life-sustaining treatment provided to a suffering terminally ill patient?ᵃ Mean (SD)</td>
<td><strong>2.59 (1.2)</strong></td>
<td><strong>2.41 (1.1)</strong></td>
<td><strong>1.95 (1.0)</strong></td>
<td><strong>2.43 (1.1)</strong></td>
</tr>
<tr>
<td>If a patient you know well who has a terminal condition and is cognitively functioning requests that you perform euthanasia, would you comply with his request?ᵇ (%)</td>
<td><strong>35.3</strong></td>
<td><strong>22.2</strong></td>
<td><strong>0.0</strong></td>
<td><strong>22.0</strong></td>
</tr>
<tr>
<td>Will you comply with a patient’s living will that requests withholding of life-sustaining treatment? (%)</td>
<td><strong>62.3</strong></td>
<td><strong>49.8</strong></td>
<td><strong>36.1</strong></td>
<td><strong>52.7</strong></td>
</tr>
<tr>
<td>Yes, always</td>
<td><strong>62.3</strong></td>
<td><strong>49.8</strong></td>
<td><strong>36.1</strong></td>
<td><strong>52.7</strong></td>
</tr>
<tr>
<td>Yes, with reservation</td>
<td>21.8</td>
<td>26.3</td>
<td>50.0</td>
<td>26.8</td>
</tr>
<tr>
<td>No</td>
<td>15.9</td>
<td>23.9</td>
<td>13.9</td>
<td>20.5</td>
</tr>
</tbody>
</table>
The attitude of Brazilian intensive care physicians towards the decisions of withdrawal or withholding treatments

AD Costa, RD Moritz, JD Matos, FA Machado
Hospital Universitário, Universidade Federal de Santa Catarina, Florianópolis, Brazil

Introduction: The decision to forgo life-sustaining treatment is among the most challenging problems that physicians and patients face.

Objective: To examine the attitudes of the critical care physicians regarding the end-of-life decisions.

Design: An anonymous questionnaire was given to the physicians who participated in the National Congress of the Brazilian Society of Critical Care Medicine.

Results: A total of 82 questionnaires were answered. The majority of those who answered the questionnaire (94%) had withheld and withdrawn life-sustaining medical treatment. Decisions were more commonly made by physicians, and the younger physicians were more likely to admit patients with no survival expectancy. Dialysis was the therapy most frequently withheld and withdrawn. Sedation or analgesia were less frequently withheld or withdrawn. The most frequently factors taken under consideration for nonadmission into the intensive care were diagnosis and prognosis. To ensure comfort to the patient with no survival expectancy is the most important factor in his admission into an ICU.

Conclusions: Despite the discomfort in forgoing treatment, the majority of critical care professionals have been discussing forgoing treatment in irreversible, terminally ill patients. It is a serious ethical matter that needs to be studied.
Withholding and Withdrawing Acute Renal Replacement Therapy

- Moral principles
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- Guidelines
- Limiting treatments not care
• Guidelines are very useful because they provide the clinical, moral, and legal background for decision making.

• They are not always sufficient ➔ no guideline would be able to determine the best decision for every patient.

• Ethical principles are required:
  – Autonomy
  – Beneficence
  – Nonmaleficence
  – Justice
TABLE 2. Situations where withholding and withdrawing is appropriate

- Patient who after been informed about the prognosis and outcomes and that have the capacity to make a decision, refuse dialysis or request it to be discontinued
- Patient who has lost ability for making a decision and who has oral or written advance directives indicating the refusal of dialysis support
- Patient without any previously oral or written advance directives who has lost the capacity for making a decision and whose legally designated surrogates refuse dialysis initiation or request the discontinuing of renal support
- Patient with irreversible and profound neurologic impairment (e.g., unable to recognize anyone, unable to comprehend and communicate meaningfully, permanently loss of consciousness)
- Patient who has a terminal illness from a nonrenal cause or whose medical condition precludes the technical process of dialysis
- Patient who will not benefit any longer of the use of dialysis or the use of this therapy implies a high-risk/benefit ratio

Modified from Galla (30).
Suggested management of the patient's refusal of possibly non-futile intervention

PATIENT REFUSES POSSIBLY NON-FUTILE INTERVENTION

- Patient refuses intervention but would accept the predictable outcome
  - Because of religious/deep-rooted personal beliefs
    - a) Involve relatives/friends
    - b) Offer different therapeutic options, if available
    - c) Consider consult with Ethics Committee
    - d) Consider legal advice
    - e) As a general rule, consider respecting position
  - Because of fear/stress/fatigue
    - a) Involve relatives/friends
    - b) Reassure
    - c) Ensure adequate comfort and analgesia
    - d) As a general rule, consider sedation and treatment in patient’s interest

- Patient refuses intervention because she/he refuses the predictable outcome
  - Patient’s position in contrast with patient’s values and view of life
    - a) Involve relatives/friends
    - b) Reassure; ensure comfort and analgesia
    - c) Consider consult with Ethics Committee
    - d) As a general rule, consider sedation and treatment in patient’s interest
  - Patient’s position in line with her/his values and view of life
    - a) Involve relatives/friends
    - b) Consider consult with Ethics Committee
    - c) Consider legal advice
    - d) As a general rule, consider respecting patient’s position
Tabla 1. Situaciones en las que se aconseja en el protocolo la no entrada/retirada de diálisis

a) En caso de pérdida sustancial de la capacidad cognoscitiva:
   - demencia avanzada irreversible,
   - oligofrenia profunda,
   - estado vegetativo persistente.

b) En caso de trastorno psiquiátrico grave con impedimento de mínima colaboración del paciente en el tratamiento:
   - psicosis crónica irreductible.

c) En caso de presencia de otras enfermedades de pronóstico infausto (supervivencia menor de seis meses):
   - enfermedad maligna sólida no tratable, metastásica,
   - enfermedad maligna hematológica refractaria, no tratable,
   - enfermedad terminal irreversible hepática, cardíaca o pulmonar (en estos casos serán pacientes encamados con ayuda importante para las actividades diarias),
   - fallo multisistémico con pronóstico de supervivencia altamente improbable.
**Tabla IV.** Causas de la propuesta de retirada de diálisis. En la mayoría de pacientes existía más de un motivo para retirar la diálisis: el dolor, la amputación de extremidades inferiores y la paráplejía son consideradas como causas coadyuvantes sobre las fundamentales ya previamente existentes.

<table>
<thead>
<tr>
<th>Deterioro general/caquexia</th>
<th>13</th>
<th>Amputación extremidades inferiores</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demencia vascular</td>
<td>11</td>
<td>Neoplasia pulmonar</td>
<td>2</td>
</tr>
<tr>
<td>Demencia generativa</td>
<td>1</td>
<td>Paraplejía</td>
<td>1</td>
</tr>
<tr>
<td>Dolor</td>
<td>9</td>
<td>Insuficiencia cardíaca congestiva</td>
<td>1</td>
</tr>
<tr>
<td>Accidente vascular cerebral</td>
<td>7</td>
<td>Aplasia medular</td>
<td>1</td>
</tr>
<tr>
<td>Cardiopatía isquémica</td>
<td>3</td>
<td>Peritonitis + perforación gástrica</td>
<td>1</td>
</tr>
<tr>
<td>Isquemia intestinal</td>
<td>3</td>
<td>Cirrosis hepática</td>
<td>1</td>
</tr>
</tbody>
</table>

**Tabla V.** Características de los pacientes retirados de diálisis

| Tiempo de permanencia en diálisis: | 26,5 meses (1,32) |
| Situación funcional:              | Kamofsky, entre 10 y 30 |
| Comorbilidad:                     | 2,8 (1-5)          |
| Propuesta de la retirada hasta el |                       |
| fallecimiento:                   | 6,3 días (1-30)    |
| Retirada efectiva hasta el fallecimiento: | 3,8 días (1-13) |
| Lugar del fallecimiento:         | 24 hospital/6 domicilio |
| Decisión:                         | 6 paciente/24 familiar |
| Decisión del familiar:            | 12 demencia         |
|                                  | 7 accidente vascular cerebral |
|                                  | 5 desorientación + deterioro general + |
|                                  | manifestación previa de voluntad de morir |
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Most physicians consider “curing” as the most important aspect of their task.

Technical interventions → evidence available on outcomes (no personal involving).

Mechanistic approach: If under condition A, B, and C, treatment X results in a better survival/cure than treatment Y, then X is the preferred treatment.

Curing implies a technical action; may prolong life of patient and/or improve physical problems.

Caring takes into account patients' feelings, relates more to quality
Limiting treatments......not care

• Three basic concepts:
  – “No RRT” should never come to mean “No care”
  – Limiting supportive procedures intends to avoid futile therapies, not to lead a patient to death
  – Be ready to re-evaluate the patient's situation
Withholding and Withdrawing Renal Support in Acute Kidney Injury

Rolando Claure-Del Granado and Ravindra L. Mehta
Division of Nephrology and Hypertension, Department of Medicine, University of California San Diego, San Diego, California

Special Patient Groups (e.g., Terminal illness from non-renal cause, profound neurological impairment)

- Yes: Palliative Care
- No

Assess dialysis feasibility

- Yes
  1. Assess goals of therapy
  2. Estimate prognosis and outcomes
  3. Evaluate ethical principles of beneficence and non-maleficence
  4. Are advance oral or written directives available?
  5. Shared decision-making process

  *Patient – Family – Medical Care Team

  - Clear and defined goals of therapy
    - Defined and/or certain prognosis and outcomes
    - Benefit > Risk
    - Lack of advance directives
  - No to any of the points
  - Reassess goals of therapy
    - Agreement on withholding
    - Disagreement
      - Medical committee + Ethics consultation + Legal consultation

- No

Start dialysis

Withhold dialysis

Palliative care
Withholding and Withdrawing Renal Support in Acute Kidney Injury

Rolando Claure-Del Granado and Ravindra L. Mehta
Division of Nephrology and Hypertension, Department of Medicine, University of California San Diego, San Diego, California

**Patient on RRT**

Continue the process of:

1. Assess goals of therapy
2. Estimate prognosis and outcomes
3. Evaluate ethical principles of beneficence and maleficence
4. Are advance oral or written directives available?
5. Shared decision-making process

*Patient – Family – Medical Care Team

Clear and defined goals of therapy
Defined and/or certain prognosis and outcomes
Benefit > Risk
Lack of advance directives
Consensus reached

---

**Time-limited trial**

Reassess goals of therapy

Agreement on withdrawing

Disagreement

Medical committee + Ethics consultation + Legal consultation

---

Yes to all of the points

Withdraw dialysis

Palliative care

No to any of the points
Practical points

• The decision-making process of withholding or withdrawing RRT is a complex one and depends on many interacting factors, which are unique for each patient, for each individual member of their families, and for each member of the care team.

• Risk assessment prediction scores and scores for prognosis provide valuable information for the patients, families or surrogates, and the care team in the process of medical decision making and should constitute the first step when withholding and withdrawing dialysis is considered.

• It is fundamental that any decision should be shared among patients, families or surrogates, and the medical care team.

• Shared decision-making is a continuous process that changes every day of patient stay in the critical care unit.