

# Decision-Making on Life-Sustaining Treatment and Palliative Care at End of Life: Perspectives of Korean Nephrologists



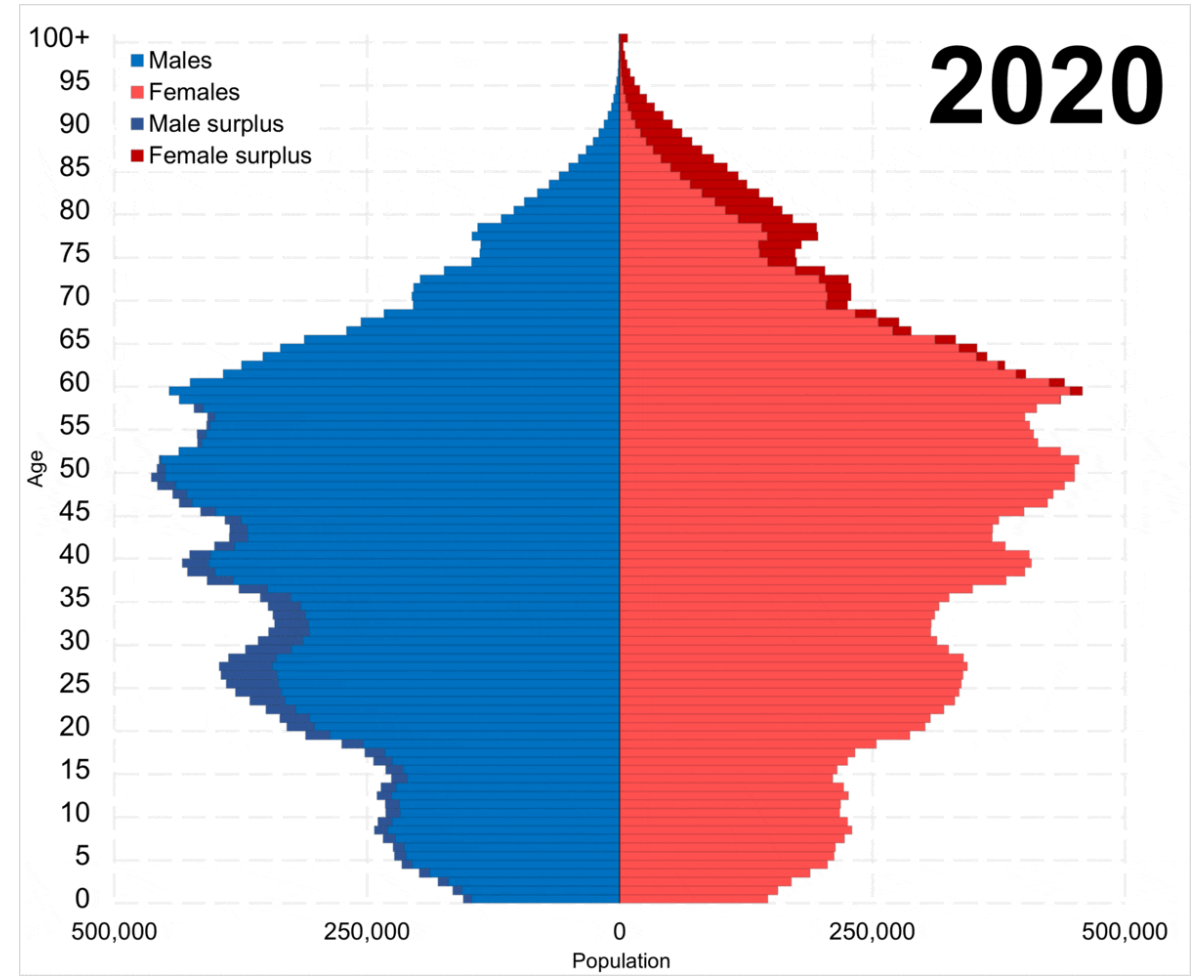
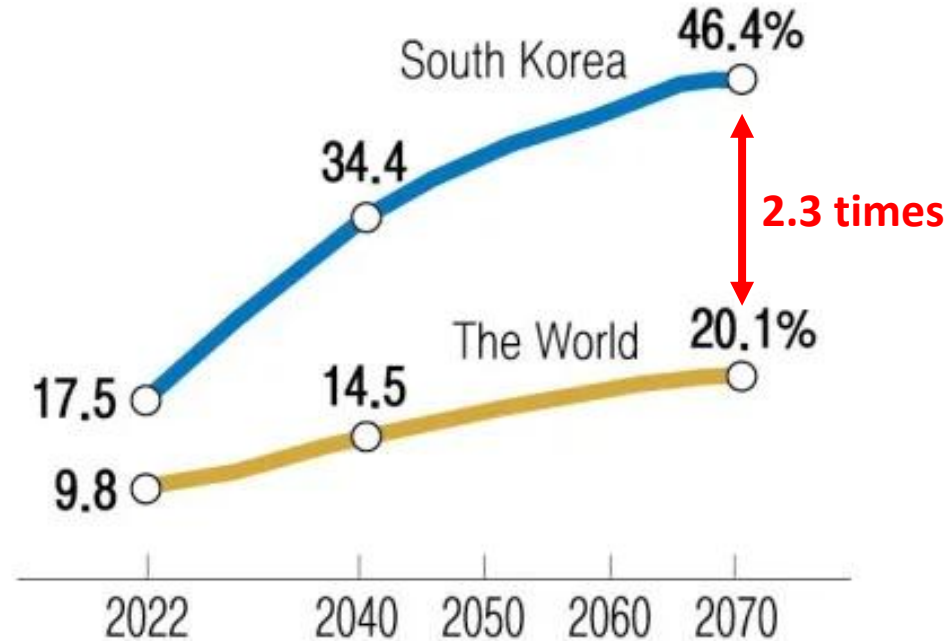
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  - Withdrawing dialysis: candidates, process, post-withdrawal management

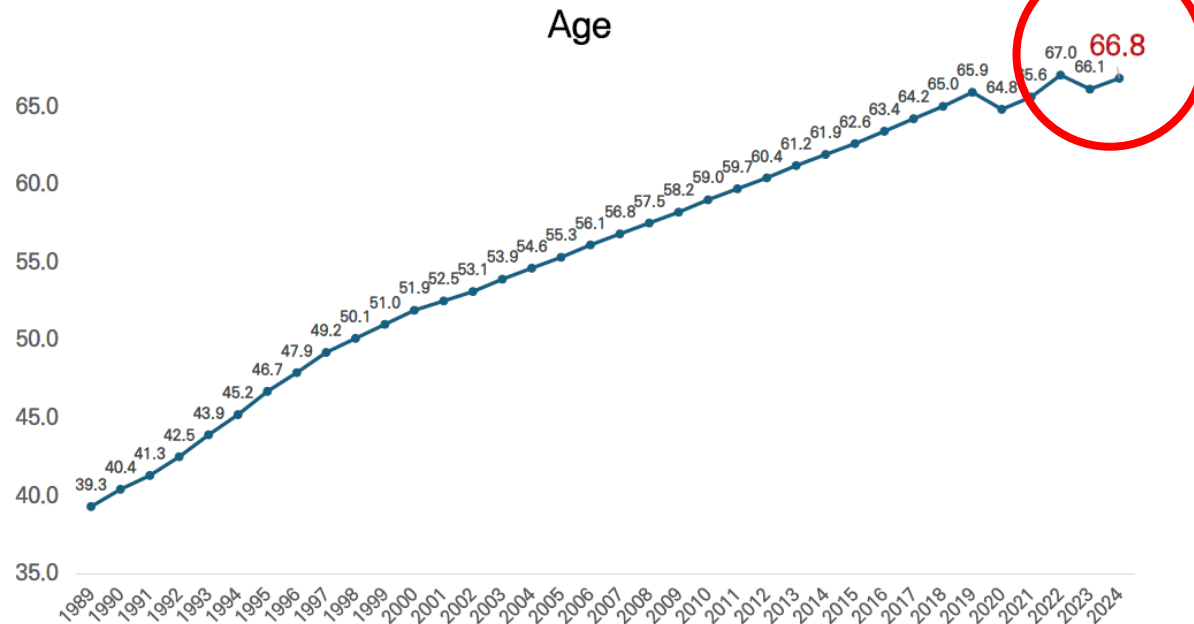
# Korea is one of the fastest-aging countries

Share of population ages 65 and older in South Korea and the World

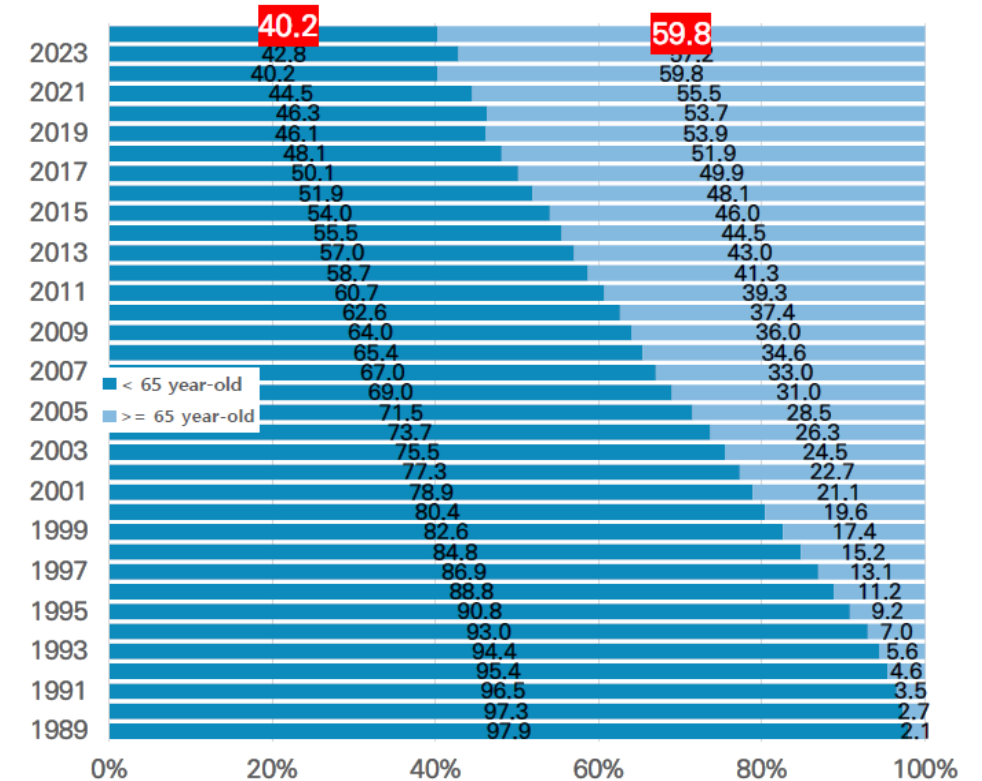


# Distributions of Elderly ESKD patients in Korea

- 2025 Korean Renal Data System (KORDS) Annual report



Age distribution of End-stage kidney disease



Proportion of elderly dialysis patients

# What is Life-sustaining treatment (LST) in Korea?

- Life-sustaining treatment refers to medical interventions that prolong the dying process without providing a curative effect.



**CPR**



**Hemodialysis**



**Anticancer  
Drug**



**Mechanical  
Ventilation**



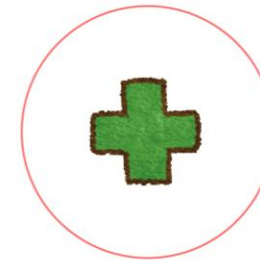
**Extracorporeal  
Life Support**



**Transfusion**



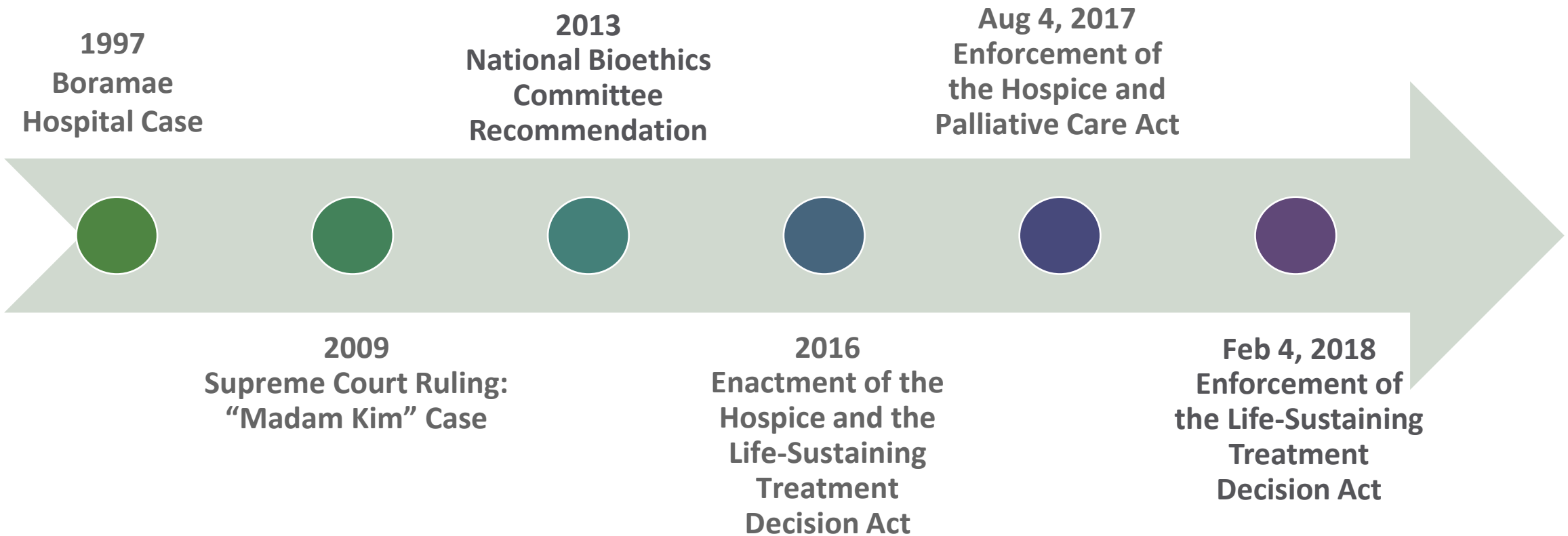
**Inotropic**



**Physician-determined  
medical procedures**

# Major Events Leading to the LST decision Act

- **The Act on Decisions on Life-Sustaining Treatment (LST) in Korea**
  - Enforcement Date Feb 04, 2018



# The Borame Hospital Case (1997)

## • Case summary

- 58-year-old man had emergency surgery; needed ICU care.
- Wife insisted on discharge despite warnings of near-certain death.
- After signing a death-risk statement, he was discharged and died immediately.
- Wife convicted for murder by omission; physicians also held liable.

## • Impact

- Heightened physician fear of legal responsibility in stopping/withholding treatment.
- Triggered national debate on dignified death and led to the LST Decision Act (2018).





# The 'Madam Kim' case (2009)

## • Case summary

- 76-year-old woman in a persistent vegetative state due to hypoxic brain injury after bronchoscopic lung biopsy.
- Family requested ventilator withdrawal, but hospital refused due to lack of legal grounds.
- Supreme Court ruled withdrawal permissible when the patient is terminal and had previously expressed intent.

## • Impact

- Established legal recognition of withdrawing life-sustaining treatment.
- Clarified criteria for terminal/irreversible conditions and patient intent.
- Served as a direct foundation for the Life-Sustaining Treatment Decision Act (2018).





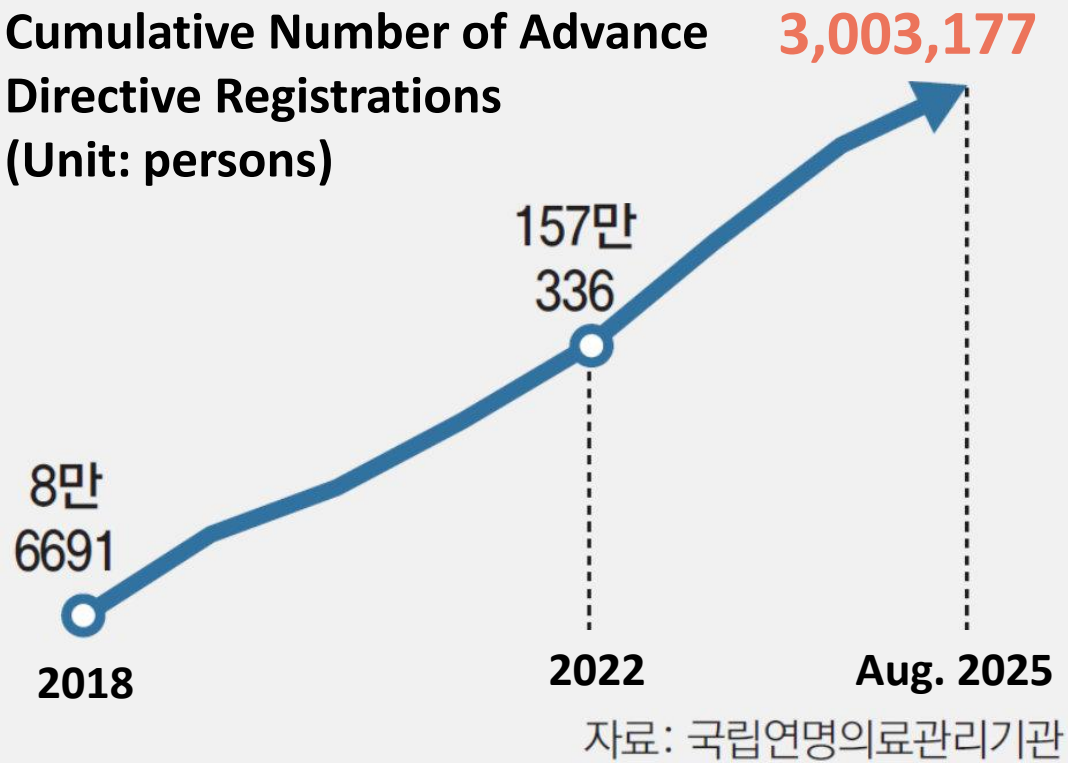
# Advance decision on Life-sustaining Treatment in Korea

- Those who meet the requirements of “the Act on Decisions on Life-Sustaining Treatment (LST)” can prepare and leave their intention for life-sustaining treatment through Advance Directives and Life-sustaining Treatment Plan.

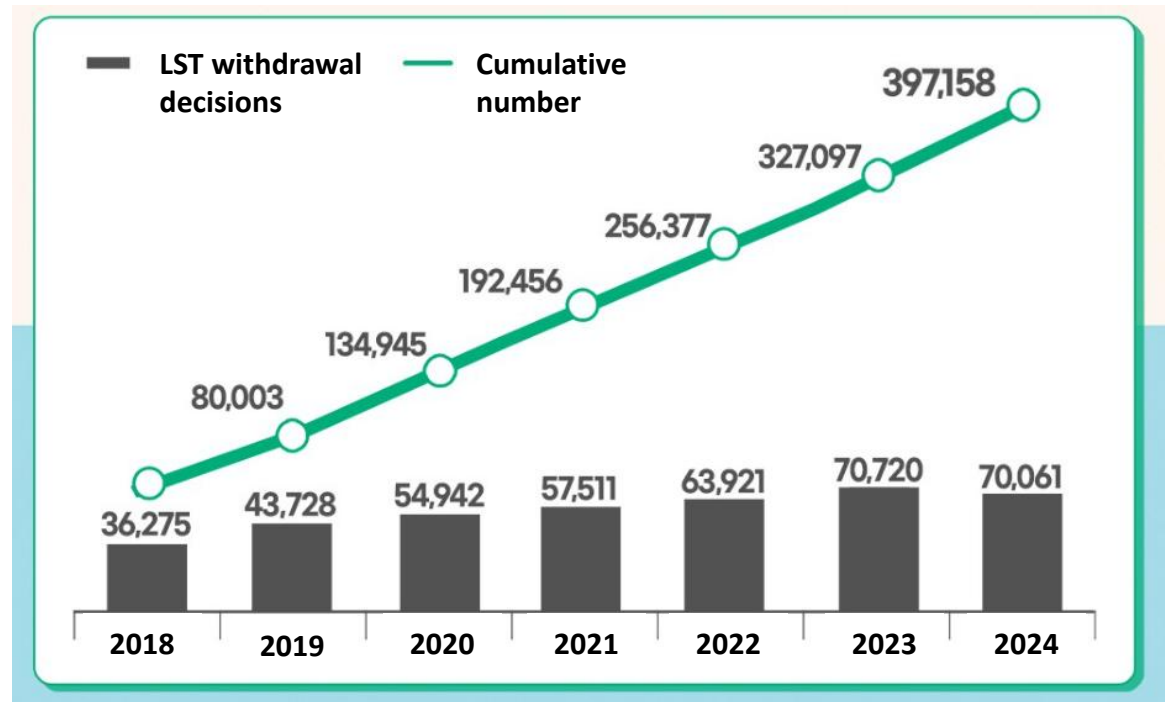
	Advance Directives	Life-sustaining Treatment Plan
<b>Target</b>	Adults ages 19 and above	Terminal patients or Patients at the end stage of life
<b>Prepared by</b>	Patient himself or herself	Prepared by the doctor in charge upon request of the patient
<b>Explained by</b>	Counselor	Doctor in charge
<b>Registration</b>	Registry Agencies designated by the Ministry of Health and Welfare	Medical Institution with registered Ethics Committee

# Trends in Advance Directives and LST Decisions in Korea

**Cumulative Number of Advance Directive Registrations**  
(Unit: persons)



**Implementation of Life-Sustaining Treatment Withdrawal Decisions**



# Life-Sustaining Treatment Decision Act and Dialysis

## 연명의료결정법과 혈액투석 설문조사



대한신장학회 회원 여러분께,

2018년 2월 이후, 「호스피스·완화의료 및 임종과정에 있는 환자의 연명의료결정에 관한 법률안」(이하, 연명의료결정법)이 시행되고 있습니다.

연명의료결정법에 의하면, 혈액투석은 항암치료, 인공호흡기, 심폐소생술과 더불어 연명의료의 하나로, 말기 또는 임종기 환자의 결정에 따라 중단이 가능합니다.

그 동안, 연명의료와 관련된 의학적, 윤리적, 법적 논의는 주로 인공호흡기나 심폐소생술과 관련하여 이루어져 왔고, 그 결과 다양한 진료지침과 가이드라인이 제시되었습니다.

반면, 혈액투석은 연명의료결정법에 따라 중단이 가능한 연명의료로 구분되었지만, 역사적으로나 실제 임상상황의 맥락에서 보면 인공호흡기나 심폐소생술과는 확연한 차이를 보입니다.

이에 '연명의료결정법에 따른 혈액투석'에 대해 대한신장학회에서는 회원 여러분의 의견을 듣고자 합니다.

이를 바탕으로 연명의료로서의 혈액투석에 대한 국내 현실에 맞는 실질적이고 합리적이고 윤리적인 방안을 제시하고자 합니다.

설문은 익명으로 진행되며, 시간은 10~15분 정도 소요됩니다.

아래의 '[설문조사 바로가기](#)'를 누르시면 설문에 참여하실 수 있습니다.

많은 분들이 참여해 주셔야 설문조사의 의미가 있고, 국내 현실에 맞는 방안을 마련할 수 있는 초석이 될 수 있습니다.

신장학회 회원 여러분의 많은 참여를 부탁드립니다.  
감사합니다.

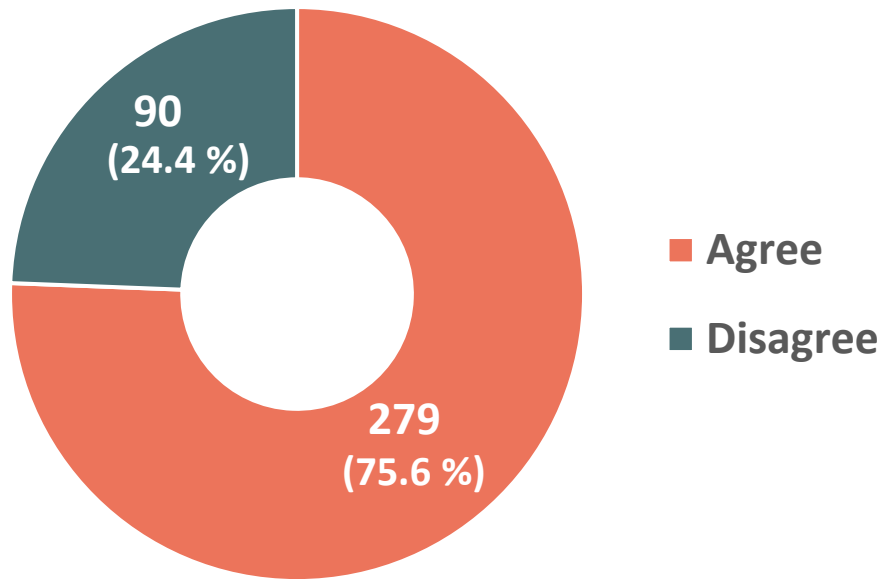
대한신장학회 이 사 장 김연수  
윤리이사 신성준/김상욱

## • Korean Society of Nephrology Member Survey

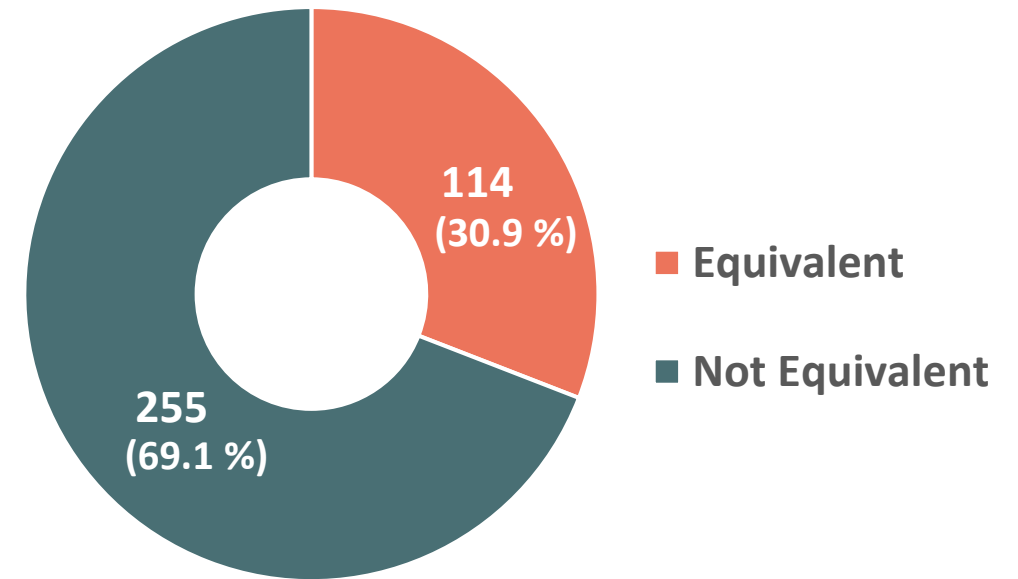
- Goals: Understand nephrologists' perspectives on dialysis-related LST decisions
- Participants: Members of the KSN (excluding pathologists and pediatricians)
- Organizer: Ethics Committee of the KSN
- Method: Email survey
- Period: January 22, 2019 – April 30, 2019
- Number of respondents: 369

# How Nephrologists Perceive hemodialysis as LST in Korea

- **Q1:** Should hemodialysis be considered an LST at end-of-life (EOL)?



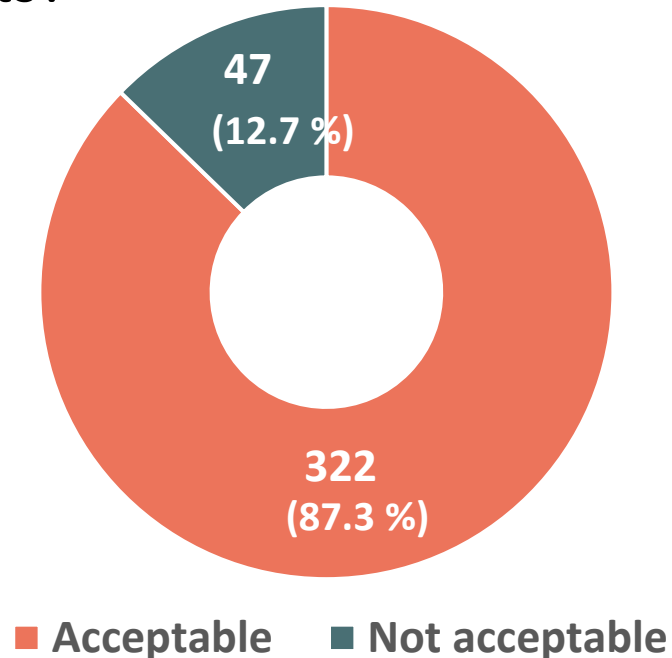
- **Q2:** Are withholding and withdrawal of dialysis ethically equivalent?



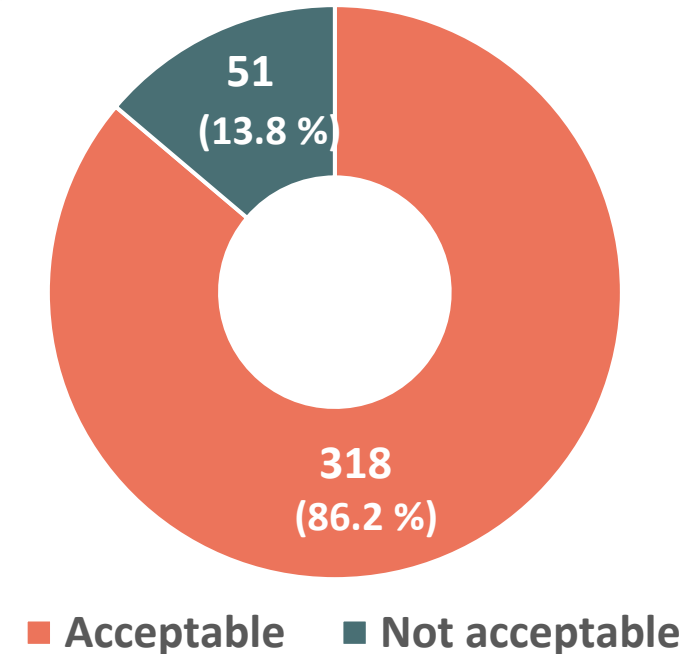
Most Korean nephrologists view hemodialysis as LST, and see a clear ethical difference between withholding and withdrawal.

# Nephrologists' Views on Withhold/Withdraw Hemodialysis

- **Q3:** Is it ethically acceptable to withhold hemodialysis in terminally ill or EOL patients?

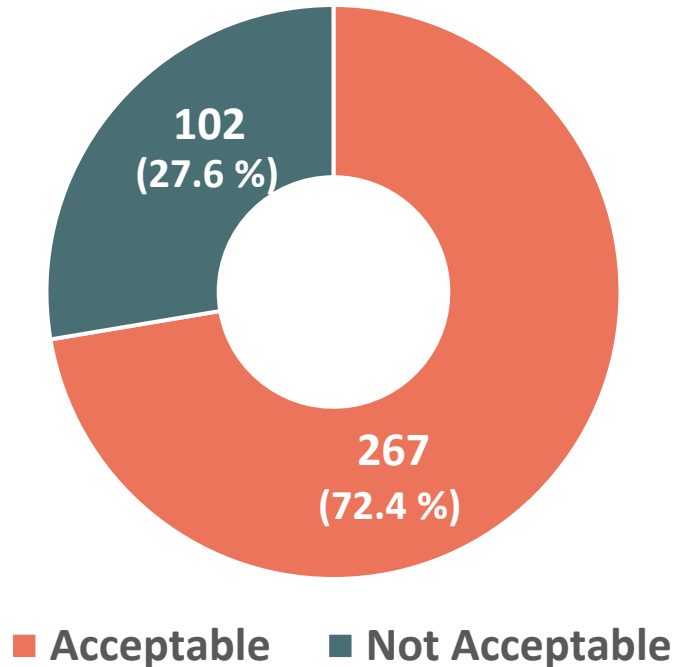


- **Q4:** Is it ethically acceptable to withdraw hemodialysis in terminally ill or EOL patients?



# Nephrologists' Views on Withdrawing Dialysis in ESKD patients

- **Q5:** For maintenance hemodialysis patients who become terminally ill, is withdrawing dialysis ethically acceptable?



72% of nephrologists consider dialysis withdrawal ethically acceptable at end-of-life.



# Reasons Supporting Withdrawal/Withholding Dialysis (Pros)

## 1. Avoiding unnecessary or futile treatment in terminal patients

- Many terminally ill patients no longer benefit from dialysis

## 2. Allowing a more dignified EOL experience

- Withdrawal may support a peaceful and dignified dying process

## 3. Respecting patient autonomy in treatment decisions

- Importance of honoring patient's wishes and advance directives

## 4. Reducing physical or psychological suffering

- Dialysis may cause significant distress in EOL conditions

## 5. Lowering the socioeconomic burden of LST

- Decreases unnecessary healthcare costs for families/society

## 6. Lessening caregiver burden associated with dialysis

- Reduces emotional, physical, and logistical strain on caregivers

# Concerns About Withdrawal/Withholding Dialysis (Cons)

## 1. Ethical concerns about discontinuing dialysis

- Fear that withdrawal may violate professional or moral obligations

## 2. Risk of incorrect clinical judgment

- Possibility of misidentifying a patient as terminal or irreversible

## 3. Potential legal liability

- Concern about lawsuits or criminal charges after stopping dialysis

## 4. Misuse or misinterpretation of the LST Decision Act

- Worry about inappropriate application of legal criteria

## 5. Challenges in emergency or rapidly changing situations

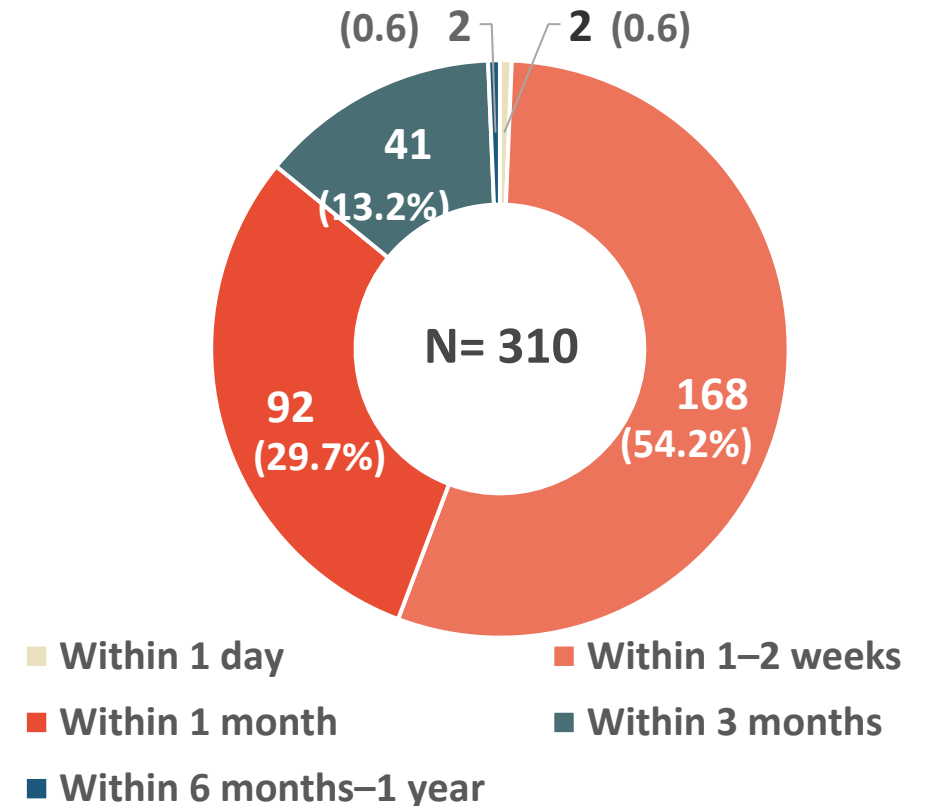
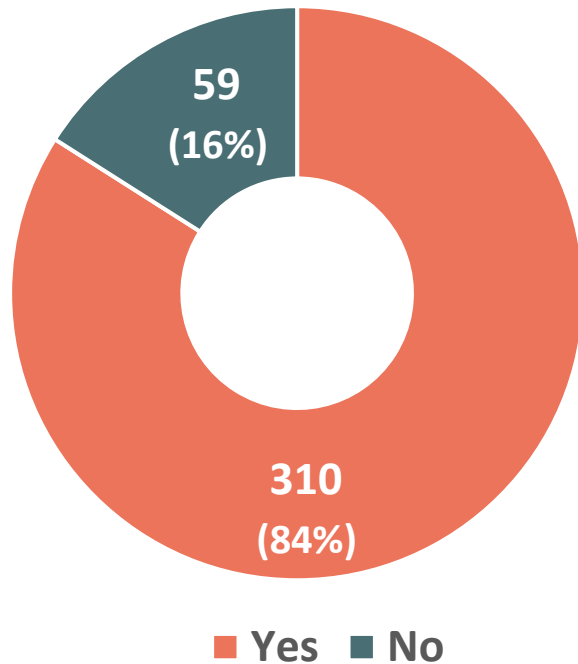
- Difficulty making EOL decisions when patient status deteriorates suddenly

## 6. Insufficient practical implementation or institutional support

- Lack of clear protocols, resources, or training for EOL decisions

# Factors Influencing Decisions to Withhold/Withdraw Dialysis

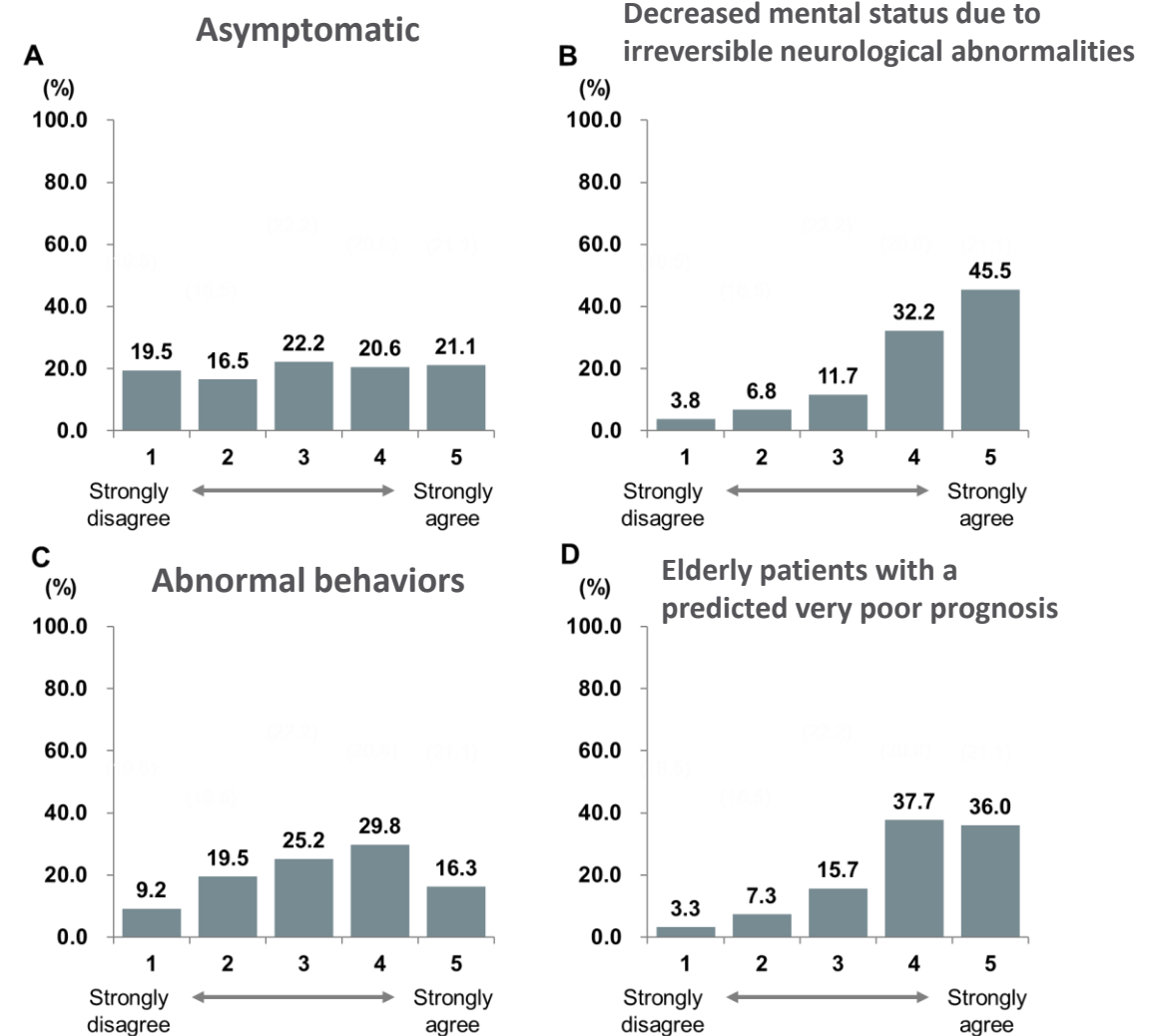
- **Q6:** Does the patient's **estimated life expectancy** influence your decision to withhold or withdraw hemodialysis as LST?
- **Q7:** **at what estimated life expectancy** do you think dialysis can be discontinued in terminally ill or EOL patients?



# Factors Affecting Decisions to Withhold/Withdraw Hemodialysis

- **Q8:** What do you consider the most important factor when deciding whether to withhold or withdraw hemodialysis in terminally ill or EOL patients?

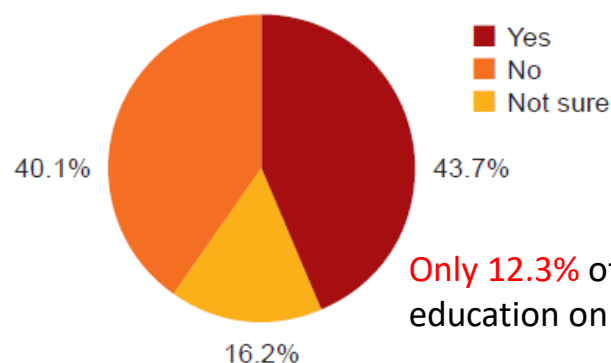
1. When the patient is unable to continue dialysis (84.3%)
2. Poor overall clinical condition (74.8%)
3. The patient's explicit request to discontinue dialysis (47.3%)
4. Age (29%)
5. Far-advanced dementia (27.1%)
6. Number of comorbidities (16.5%)



# Effect of shared decision-making education on physicians' perceptions and practices of end-of-life care in Korea

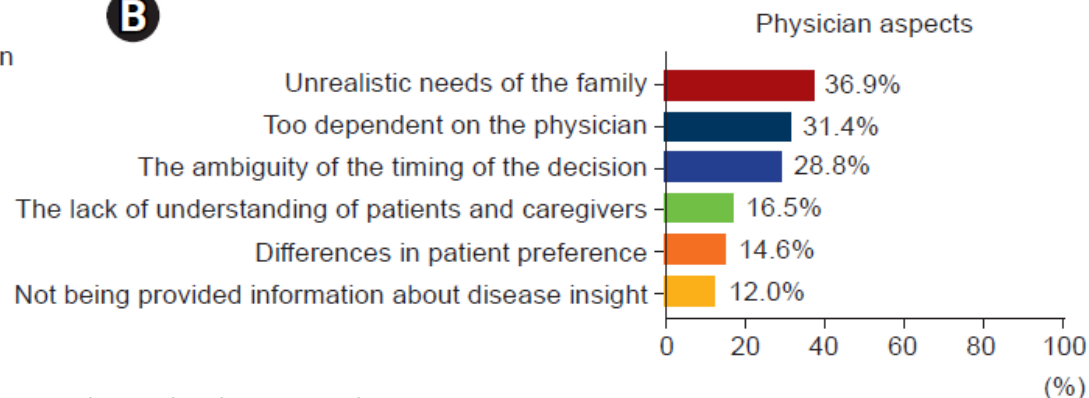
Byung Chul Yu<sup>1</sup>, Mlyeun Han<sup>2</sup>, Gang-Jee Ko<sup>3</sup>, Jae Won Yang<sup>4</sup>, Soon Hyo Kwon<sup>5</sup>, SungJin Chung<sup>6</sup>, Yu Ah Hong<sup>7</sup>, Young Youl Hyun<sup>8</sup>, Jang-Hee Cho<sup>9</sup>, Kyung Don Yoo<sup>10</sup>, EunJin Bae<sup>11</sup>, Woo Yeong Park<sup>12</sup>, In O Sun<sup>13</sup>, Dongryul Kim<sup>14</sup>, Hyunsuk Kim<sup>15</sup>, Won Min Hwang<sup>16</sup>, Sang Heon Song<sup>17</sup>, Sung Joon Shin<sup>18</sup>

**A** Is SDM appropriately made in decision to withhold or withdraw of life-sustaining treatment in actual clinical practice?

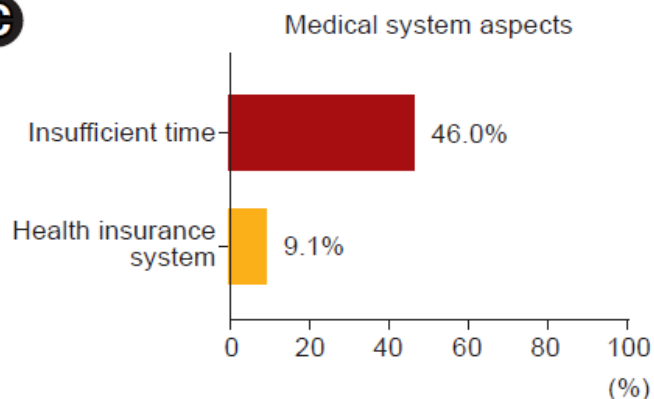


Only 12.3% of respondents had received education on SDM as part of their training.

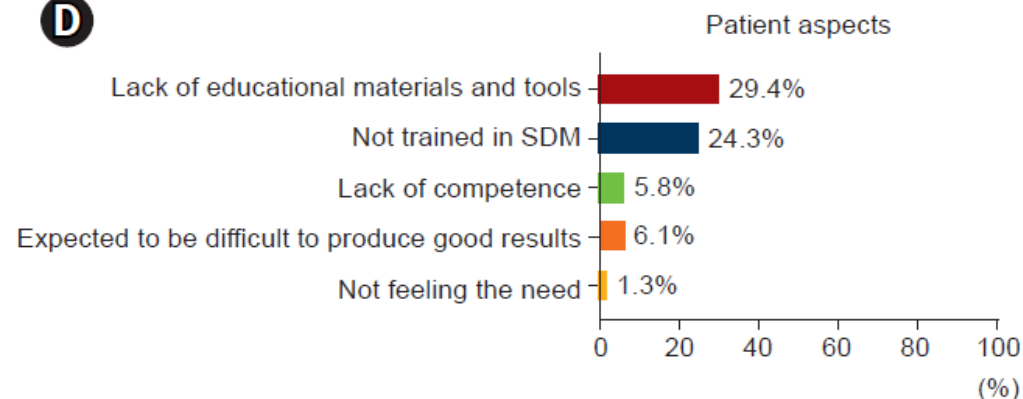
**B**



**C**



**D**



# KSN CPGs for Withholding and Withdrawing Dialysis



- **Recommendation for Withholding and Withdrawing Dialysis in Elderly patients with CKD**
  - Ethical Committee, KSN
  - Published in June 2024
  - Scope: Elderly ESKD patients ( $\geq 65$  years old)
  - Aim: Provide ethical, legal, and clinical framework for EOL dialysis decisions
  - Core principles:
    1. Patient-centered care
    2. Shared decision-making
    3. ACP emphasized
    4. Alignment with LST Decision Act



# When to Withhold Dialysis

- **Candidates for Withdrawing Dialysis in Elderly Patients with ESKD**
  - When a competent patient chooses to discontinue dialysis
  - Dialysis prolongs dying process without benefit
    - ✓ Limited life expectancy
    - ✓ Severe cognitive or functional decline
    - ✓ Expected to be harmed by dialysis
- **Process of Discussing Dialysis Withholding**
  - Through a shared decision-making process and informed consent
  - Advance care planning should also be established during this process
  - Patient may withdraw or change this decision at any time

# When to Withdraw Dialysis

- **Candidates for Withdrawing Dialysis in Elderly Patients with ESKD**
  - When a competent patient chooses to discontinue dialysis
  - Dialysis prolongs dying process without benefit
  - Limited life expectancy
  - Severe cognitive or functional decline
  - Expected to be harmed by dialysis
- **Process of Discussing Dialysis Withdrawing**
  - Rule out reversible causes (pain, depression, distress)
  - Through a shared decision-making process and informed consent + Advance care planning
  - In accordance with the legal procedures outlined in the Act on Decisions on LST
  - Patient may withdraw or change this decision at any time
  - Palliative care principles after withdrawal and symptom-oriented dialysis may still be considered

# Take Home Message



- Dialysis at the end of life is medically, ethically, and legally complex.
- Most Korean nephrologists view dialysis as life-sustaining treatment in terminal illness.
- Withholding and withdrawal dialysis is more widely accepted for Korean nephrologists.
- Key factors influencing decisions include the patient's inability to continue dialysis, and a poor overall clinical condition.
- The recent KSN guideline provides a clear and practical framework for end-of-life dialysis decisions
- Shared decision making and advance care planning are essential to improve end-of-life care in dialysis patients.



Q&A