



Non-beneficial treatment at the end of life

Extent, causes, solutions and future research

Never Stand Still

Medicine

The Simpson Centre for Health Services
Research

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Purpose

- To investigate the extent of 'non-beneficial treatments (NBTs) for 60 + y.o. in routine hospital care anytime in the last 6 months of life.

Data sources

- Four databases and the grey literature (January 1995–April 2015) + manual searches

Research Questions

1. To describe the variety of definitions of NBTs and assess the ability to measure them in practice
2. To examine the extent of objectively measured 'non-beneficial' hospital treatments at the EOL

What we meant by *non-beneficial* at EOL

- As defined by authors (objective / subjective)

Keywords:

- Futile or inappropriate or disproportionate or non-beneficial or costly (excessive/unnecessary) AND
- hospital or hospitalization AND
- cancer, or CHF, CKD, chronic liver disease, stroke, chronic obstructive pulmonary disease
- advanced or terminal or life-limiting or death or dying or end-of-life

Eligible studies found

38 studies 10 countries 1.2 million subjects

Subject types: critically or chronically ill patients, surrogates, bereaved relatives, doctors/nurses

Study types:

24/38 retrospective record reviews

7 cross-sectional surveys

4 qualitative exclusively

3 prospective (2 mixed methods)

Summary of Results

On average 33% of older patients in the last 6 months of life receive some form of NBT (range from 7%-90%)

Prevalence is lower today than 2 decades ago but still unacceptable and largely unjustifiable

Only one Australian study measured NBT indicators

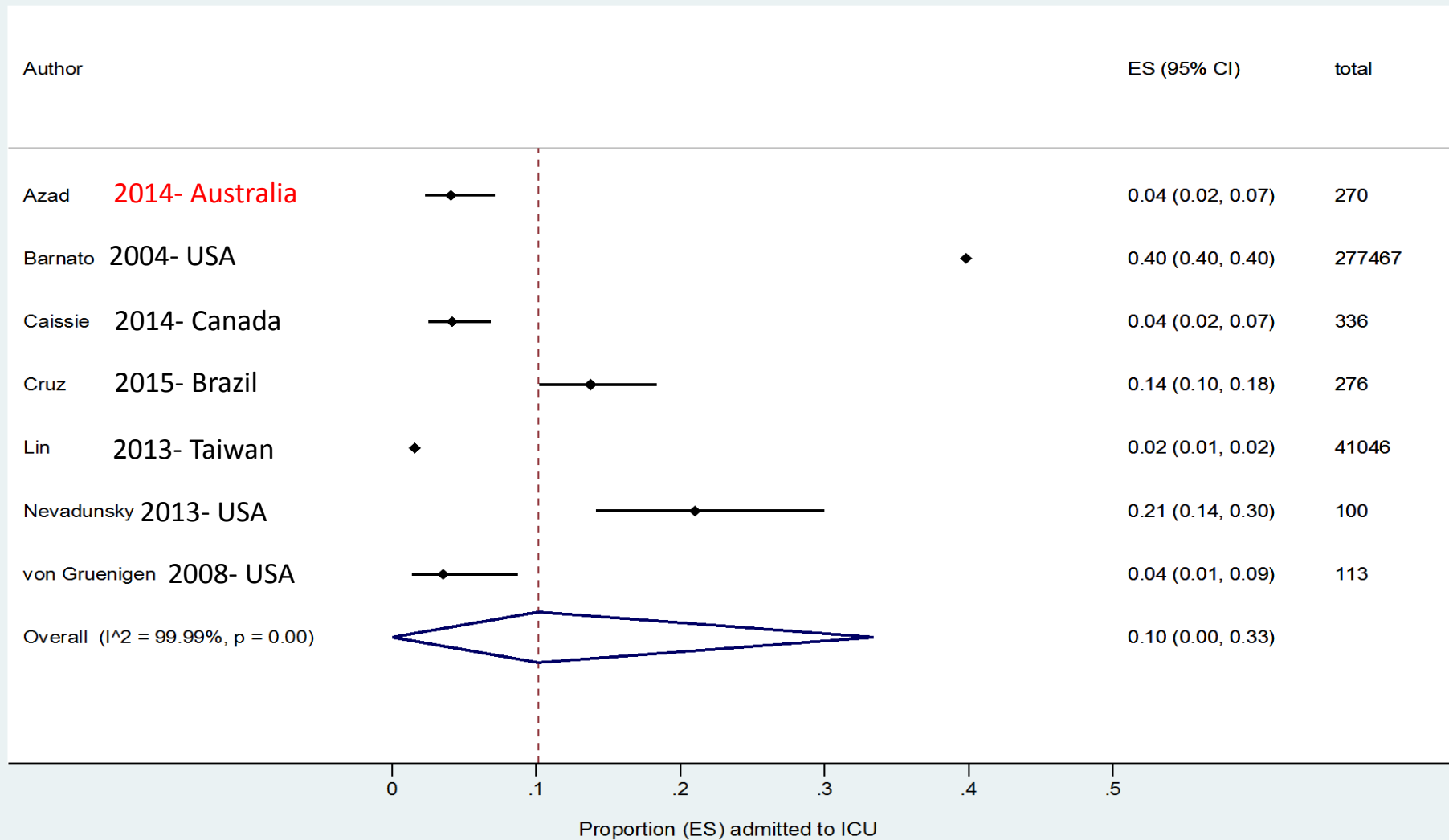
Our definition of NBT

Any treatments, procedures or tests administered to elderly patients who are naturally dying and which will not make a difference to their survival, will probably impair their remaining quality of life and can potentially cause them pain or prolonged suffering or leave them in a worse state of health than they were before admission.

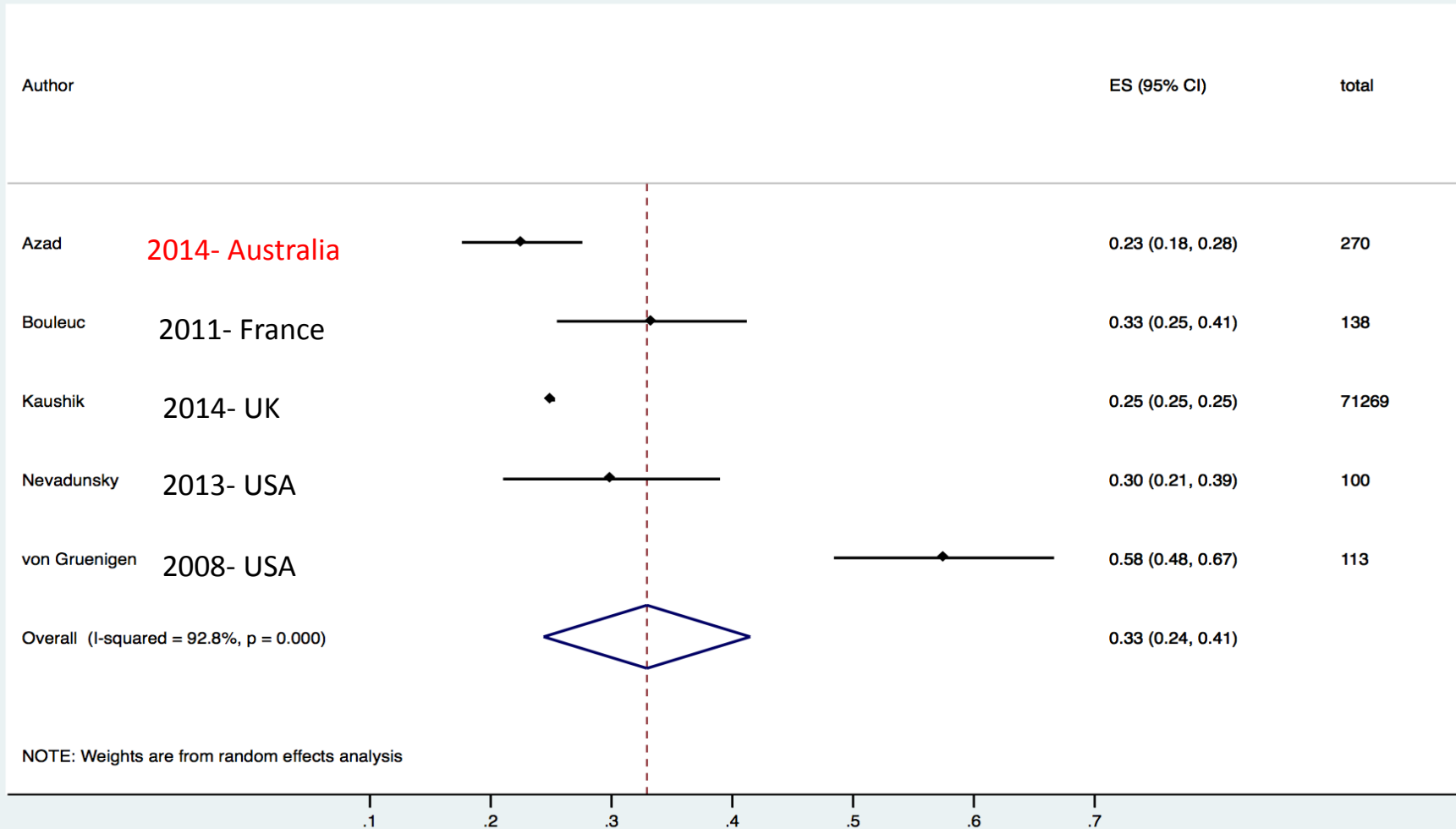
Commonly used markers of NBT

- CPR on people with DNR
- Admission to ICU for terminal patients/**with LOT**
- **Chemotherapy in last 12-2 weeks of life**
- Radiotherapy for patients with DNR
- **commenced/continued :Parenteral nutrition, IV antimicrobials, transfusions, blood tests/imaging, mechanical ventilation in patients with DNR**
- Repeat ED presentations, hospitalisations, MET calls in the last month of life; absence/late palliative care consultation or hospice referral for terminal
- **Polypharmacy: CVD, diabetes, digestive medicines**

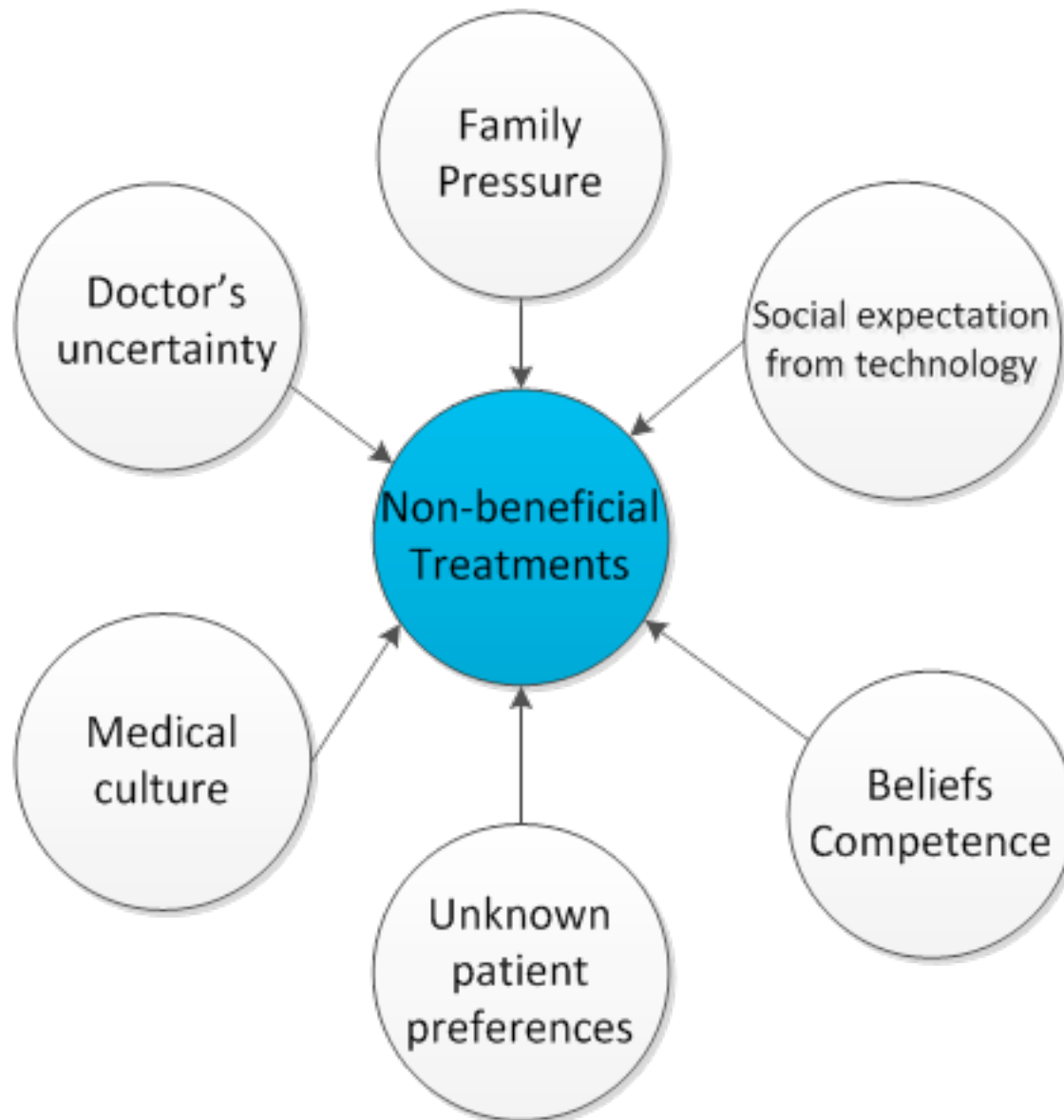
Extent of ICU Admission at EOL



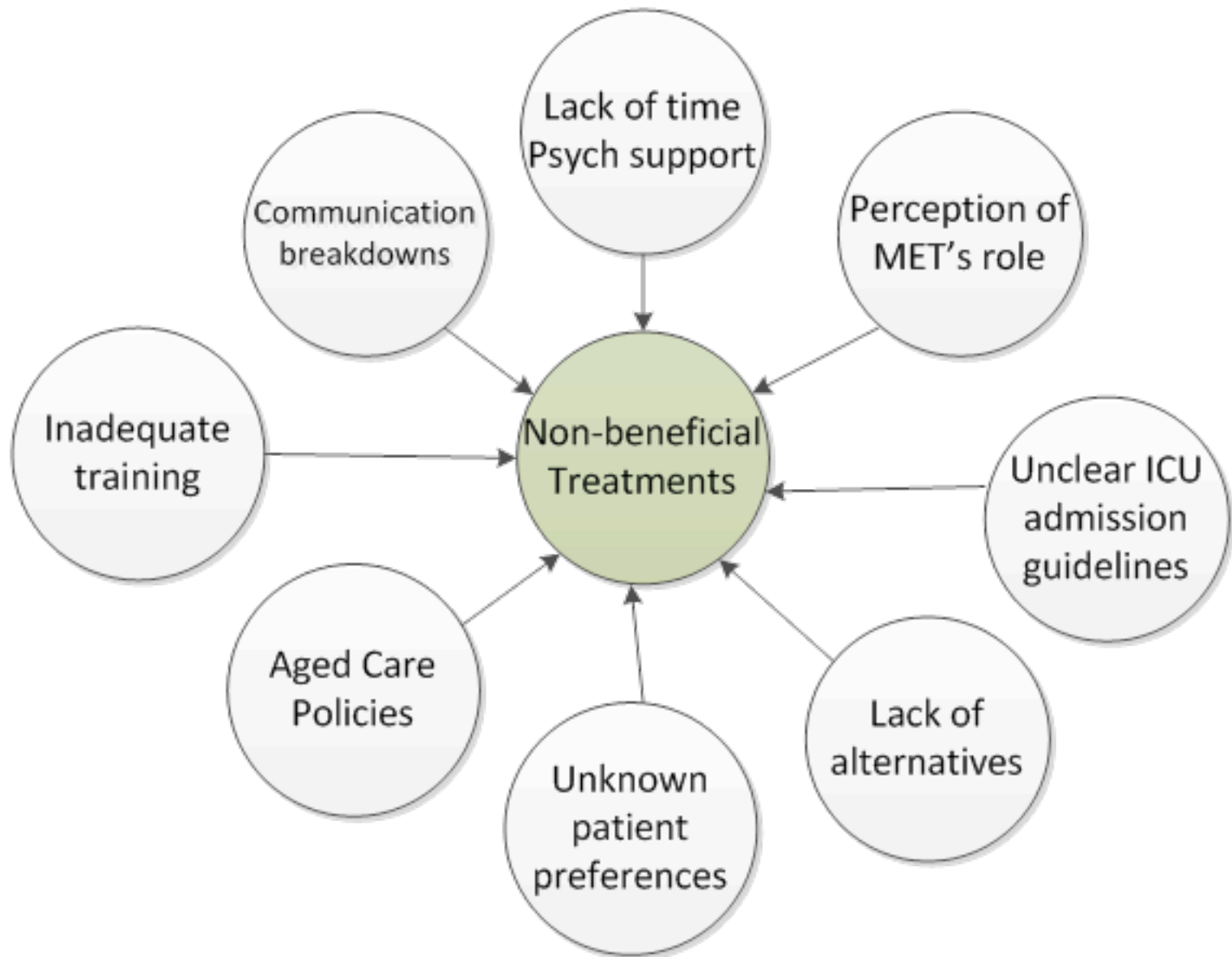
Extent of Chemotherapy use at EOL



Patient/provider Factors leading to NBT



Health System Factors



Possible Solutions

Public education on:

- Having the conversation with family
- Advance Care directives on arrival at hospital
- Lower expectation if predictors of death present

Concerted Response after identification of dying

- GP involvement in EOL discussions with older chronically ill clients
- Use of prognostic tools in ED and wards to trigger the EOL discussion rather than admissions/MET calls
- Hospital monitoring of local indicators and causes
- Hospital partnership with nursing homes/hospices
- Lobby for community supported models

Conclusions

NBTs leads to:

- Unnecessary suffering/prolonged death to patients
- Stress, false hope and regret for families
- Poor job satisfaction to doctors/nurses
- Unsustainable costs of care to the health system

Hope findings prompt wider social engagement in EOL discussion

The justification and reduction of NBT

- Is multifactorial and complex
- Culture change at social and health system level
- Might be achieved by involving all parties

Further Research

1. Impact of use of prognostic tools in routine care on clinician's confidence
2. Change of patient preferences (aggressive/comfort care) after EOL discussion
3. Most appropriate models of service to manage dying patients
4. Patient/family priorities at EOL in Australia
5. Patient/family perception of inappropriate or non-beneficial treatments or ICU admissions
6. **Multicentre: Cost of non-beneficial at EOL**

Interested in EOL Collaborations?

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