

30th International Conference on Health Promoting  
Hospitals and Health Services  
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Oral Session O3.6: "Promoting health of the elderly"

# Development of a check sheet for assessing the social and living conditions of older people with minor diseases in the emergency room

**Keiko Ueno**<sup>1</sup>, Chie Teramoto<sup>2</sup>, Daisuke Nishioka<sup>3</sup>, Naoki Kondo<sup>1</sup>

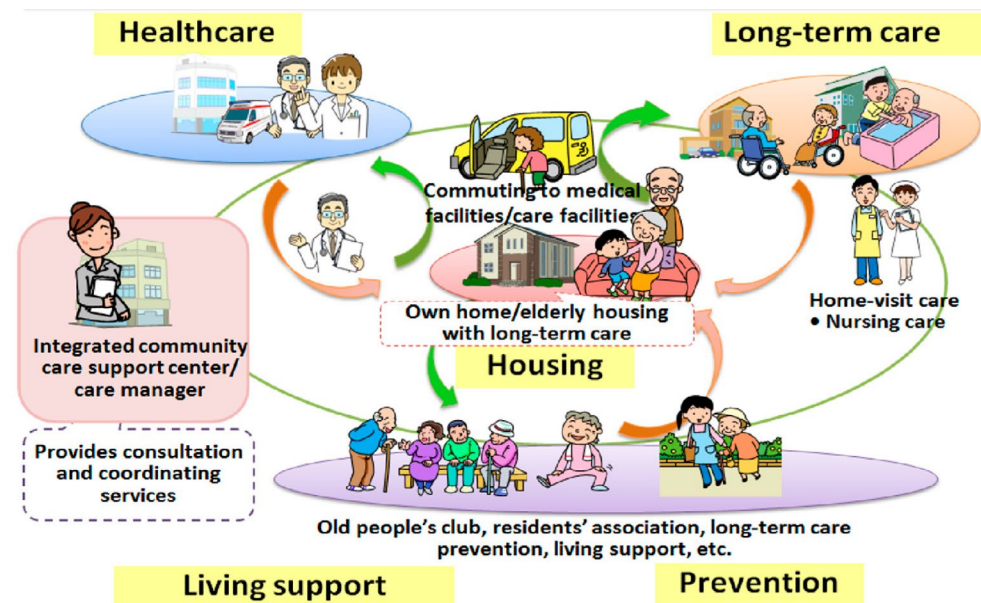
1 Kyoto University, 2 Hiroshima University,

3 Osaka Medical and Pharmaceutical University, JAPAN



# Background

- In Japan, the establishment of a community-based integrated care system has been promoted to support older people within their communities since the 2000s. (Kuroda 2020)
- In community-based comprehensive care, support tailored to individual needs is essential.
- In clinical settings, social needs of patients can become apparent and may require interventions.
- However, patients who use an ambulance to visit an emergency department (ED) and return home without being hospitalized rarely receive support to meet their social needs.



(Ministry of Health Labour and Welfare 2017)

## Background / Objective

- Social determinants of health (SDHs) are a notable cause of health disparities. (Marmot et al. 2008)  
SDHs may be addressed by promoting collaboration among various organizations and professionals.
- Factors related to the social and living conditions of ambulance users with minor diseases are unemployment, financial hardships, and types of health insurance. (Booker et al. 2015, Durant et al. 2012)
- No tools have been developed to comprehensively assess SDHs for ambulance users with minor diseases.

### Objective

**To develop a check sheet to identify the social and living conditions of older ambulance users with minor diseases**

# Methods

- Design: **Modified Delphi Method**

Delphi method = process of gaining consensus from a group of experts on a certain issue - where none previously existed. (Keeney 2010)

- Participants: paramedics, physicians, nurses, medical social workers, staff of community comprehensive support centers, and public health nurses with  $\geq 3$  years of experience.



## Delphi Method Process

# Methods

- Creation of questionnaire items on check sheet  
Extensive literature review + interviews

➔ 28 items in four domains were created.

Domain I: Items to be completed by **paramedics**

Domain II: Items to be completed by **nurses**

Domain III: Items to be completed by **doctors**

Domain IV: Items to be completed by **medical social workers**



- Level of consensus for each item  
Consensus rate for each item = the percentage of respondents who answered "5: very important" or "4: important" on 5-point Likert scale  
Round 1&2 : items with a consensus rate <70% were revised or deleted  
Round 3 : items with a consensus rate <80% were deleted
- Analysis: descriptive statistics (mean, consensus rate), free descriptions

# Results

A draft of the check sheet was created.  
(consisting of 28 items in 4 domains )

Conducted from July  
to September, 2019

Experts were invited (28 professionals).

5 paramedics,  
6 nurses,  
2 public health  
nurses,  
3 physicians,  
9 MSWs,  
1 social worker,  
2 care managers

**Delphi round 1**  
Response: 28 experts (100%)

Responses were  
analyzed and mailed  
to the participants.

**Delphi round 2**  
Response: 25 experts (89.3%)

Responses were  
analyzed and mailed  
to the participants.

**Delphi round 3**  
Response: 25 experts (89.3%)

**28 items in 4 domains were adopted  
for the check sheet.**



**1. Activities of daily living before presenting to the ED**

- Independent    Assisted walking    Walking with a cane    Walking with a walker  
 Use of wheelchair    Bedridden    Unknown

**2. Primary medical institution patient regularly visits**

- Yes (Name of medical institution: \_\_\_\_\_)    None    Unknown

**3. Nationality**

- Japanese    Foreign (Resident/Traveler)

**4. Physical condition** (multiple selections are allowed)

- Malnutrition    Wearing dirty or torn clothes    Unclean hair, nails, or skin    Unpleasant odor  
 Old and new bruises mixed    Bedsores    None    Other (\_\_\_\_\_)

**5. Patient's understanding of the doctor's explanation and their condition**

- Good    Inadequate    Unable to assess at this point (e.g., due to intoxication)

**6. Household composition**

- Older household (select all that apply: parent, partner, sibling, child)    Living alone    None    Unknown

**7. Support person ( who helps patient to make decisions)**

- Yes (Name/relationship: \_\_\_\_\_)    No    Unknown

**8. Support person's understanding of the doctor's explanation and the patient's condition**

- Good    Inadequate    Unable to assess due to their absence

**9. Caregiver availability**

- Yes (Name/relationship: \_\_\_\_\_)    No    No caregiver required    Unknown

**10. Care manager availability**

- Yes (Office name: \_\_\_\_\_)    No





**1. Diagnosis at the ED visit:** ( )

**2. Past medical history**

Yes ( )  No

**3. Treatment in the ED** (multiple selections are allowed)

Laboratory test  Imaging tests  IV fluid  Medication  Bedside procedure (e.g., suturing)  
 Consultation with a specialist  Prescription for outpatients  None

**4. Outcome after the ED visit**

Discharged home  Admitted to hospital  Transferred to another hospital

**5. ED visits to this hospital in the past 30 days**

None  Yes  Unknown

**6. Hospital admissions to this hospital in the past 30 days**



None  Yes  Unknown

**7. Hospital admissions to another hospital in the past 30 days**

None  Yes  Unknown



# Discussion

- A check sheet consisting of 28 items was developed to collect and share the social and living conditions of older ambulance users with minor diseases from multidisciplinary professionals.
- High response rate for each round: 89.3–100%  
 can be attributed to setting the target number of participants <30 (Wilkes 2015).
- “Burden of filling out a check sheet” (answers in the free description section)  
 need to consider creating a simplified version of the check sheet
- Limitations
  1. Confirmation with other professionals from different backgrounds
  2. Verification of predictive validity and reliability

# Conclusions

- In super-aging societies, emergency medicine should not only provide lifesaving and acute care but also **facilitate supportive care for older people in the community.**
- **A system of multidisciplinary collaboration in the community** is needed to ensure that appropriate support services are provided to older people.
- Future research is warranted to verify the reliability and prediction validity of the items on the check sheet, develop an operational protocol, and confirm its effectiveness for practical use.

## Ethic approval / Acknowledgements

- The study protocol was approved by the Ethics Committee of the Graduate School of Medicine and Faculty of Medicine of the University of Tokyo (approval no: 2019036NI).
- We would like to thank all those who participated in this study.
- This study was supported by the 2019 Emergency Medical Research Grant from the Emergency Medical Service Promotion Foundation (*Kukushinkou Zaidan*, <https://fasd.jp/>) .
- This presentation is part of the results published in Journal of Japanese Society for Emergency Medicine (2023;26(4):455-467).

**Paper information  
(Written in Japanese)**



Supplementary Slide

## Criteria for check sheet

Please use the check sheet for ambulance users aged  $\geq 65$  years who meet all the following conditions:

1. Not transferred from another medical institution
2. Not involved in traffic accidents
3. Not in cardiopulmonary arrest
4. Being hemodynamically stable
5. Emergency surgeries or procedures are not required.