

# The effect of comprehensive intervention with the clinical pathway for eating and swallowing disorder in the elderly with dementia

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<b>Registration date</b> 08/12/2015	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 26/09/2017	<b>Condition category</b> Nervous System Diseases	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

The natural clinical course of advanced dementia has been reported in a few studies. They often experience problems with eating and drinking, but the reason for this has not been clarified. The causes for any individual patient can be unclear, because most of those patients are nearing the end-of-life and are not likely to be assessed adequately. However, the prognosis of these patients can be improved by giving them treatments (or interventions) that help them to be able to eat. In Japan, it is recommended that elderly patients have a comprehensive geriatric assessment (CGA). This has been shown to improve their functional status (that is, improve their ability to perform normal daily activities) and prognosis for some diseases (for example, chronic heart failure and pneumonia). This study investigates whether an intervention based on CGA can also help patients suffering from eating and swallowing disorder of the elderly with dementia (ESDED). A special ESDDED team has been set up called the "Eating and Swallowing Assessment Team (ESAT)" which consists of medical doctors, dentists, dental hygienists, pharmacists, nurses, speech therapists, physical therapists, occupational therapists, dieticians and certified care workers. This team has developed a new system to examine ESDDEDs using the original clinical pathway (CP). This CP involves assessments by each specialist and integration of their findings followed by diagnosing the etiology (cause) of ESDDED in each patient. Based on the diagnosis, ESAT designs various interventional methods (treatments) and passes this information to the medical staff treating the ESDDED. This study looks at whether this medical care system based on CGA improves the ability of eating and prognosis of the patients with ESDDEDs.

### Who can participate?

Elderly patients aged over 70 with cognitive impairment (difficulties in thinking and memory), who need to be treated with artificial hydration and/or nutrition.

### What does the study involve?

Each participant has a CGA developed by the ESAT. For the first two days this involves assessing the patients various functions (physical, cognitive, chewing, swallowing, and sensory), collecting their past medical and medication history, and obtaining detailed information of their eating problems. The team perform a physical and dental examination, urine and blood examination,

chest X-ray, electrocardiogram, and magnetic resonance imaging of the brain of each patient. In addition, the behavior and reaction of each patient during nursing at dinner is observed and a list of the problems that they are having swallowing is drawn up. On the third day, a video-endoscopic examination of the patients swallowing is done, after which the ESAT decides the cause of the problems each patient has with eating. This is based on all the data that has been collected. The ESAT then plans further assessment or examination in order to identify the details of the etiology for each patient. On days 4 and 5, the ESAT perform the planned assessment or examinations and makes the final diagnosis for the etiology of the eating problem experienced by each patient. Based on the diagnosis, ESAT proposes various interventional strategies to the medical staff who treat the ESD.ED.

What are the possible benefits and risks of participating?

The participants might be able to be withdrawn from AHN. However, they might have a risk of receiving an excessive assessment or intervention, which would be unnecessary for their original medical care.

Where is the study run from?

Nanto Municipal Hospital (Japan)

When is the study starting and how long is it expected to run for?

April 2012 to June 2016

Who is funding the study?

Japan Primary Care Association

Who is the main contact?

Dr Masahisa Arahata

## Contact information

**Type(s)**

Scientific

**Contact name**

Dr Masahisa Arahata

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**Contact details**

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## Additional identifiers

## Study information

**Scientific Title**

The effect of comprehensive assessment with multi-disciplinary interventions for eating and swallowing disorders in the elderly with dementia; non-randomized, historical controlled, interventional study

**Study objectives**

The comprehensive assessment with multi-disciplinary interventions could determine the details of etiologies of eating and swallowing disorders in the elderly patients with dementia, which would help the improvement of the functional status of the eating leading to better overall survival of those patients.

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

The Institutional Review Board of Nanto Municipal Hospital, 21/03/2013, ref: # 664

**Study design**

Non-randomized historical-controlled interventional study

**Primary study design**

Interventional

**Study type(s)**

Treatment

**Health condition(s) or problem(s) studied**

Eating and swallowing disorder of the elderly with dementia (ESDED)

**Interventions**

The subjects receive comprehensive geriatric assessment (CGA) through the original clinical pathway with multi-disciplinary interventions followed by the individualized therapeutic interventions according to the assessment of the etiology of their eating problems.

**Intervention Type**

Mixed

**Primary outcome(s)**

1. Recovery rate (RR): RR represents the rate of participants who become free from AHN by taking enough amounts of nutrition and water orally for at least 7 days (longer than 7 days). If they cannot be withdrawn from AHN before discharge from the hospital, they are considered to be failed
2. AHN free survival (AHNFS): AHNFS represents the survival rate of participants who have become free from AHN. AHNFS is assessed by Kaplan Meier method, in which each participant is estimated to reach the endpoint if the participant is dead or becomes dependent on AHN. The survival rate is measured one year after withdrawal from AHN

**Key secondary outcome(s)**

The overall survival (OS) after onset of ESDDED: OS is assessed by Kaplan Meier method, in which each participant's endpoint is death. The survival rate is measured one year after the onset of ESDDED

**Completion date**

30/06/2016

## Eligibility

**Key inclusion criteria**

Participants were required to meet all the following five criteria, all of which are the characteristics of ESDED:

1. A hospitalized patient aged over 70
2. Cognitive impairment (Mini-Mental-State-Examination <24, or Hasegawa-Dementia-rating-Scale-Revised <21)
3. A patient who did not receive intravenous or surgical treatment for past 7 days
4. Oral intake is no more than 500 kilo-calories per day
5. Dependent on AHN for over 7 days

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Senior

**Sex**

All

**Key exclusion criteria**

Potential participants are excluded from this trial if they meet any of the following criteria:

1. A patient who has determined to depend on persistent tube-feeding
2. A patient with morphological anomaly due to a tracheotomy or an operation to remove all or a part of the larynx
3. A patient who has been receiving an end-of-life care

**Date of first enrolment**

01/04/2013

**Date of final enrolment**

31/03/2015

## Locations

**Countries of recruitment**

Japan

**Study participating centre**

**Nanto Municipal Hospital**  
938 Inami  
Nanto  
Japan  
932-0211

## Sponsor information

**Organisation**  
Nanto Municipal Hospital

## Funder(s)

**Funder type**  
Government

**Funder Name**  
Japan Primary Care Association

## Results and Publications

### Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are/will be available upon request from Dr Masahisa Arahata. The dataset including both intervention group and historical group can be obtained from today, and this will be stored as long as possible (at least 5 years from publication). The dataset consists of personal data (patient no., allocated group, age, sex, baseline characteristics, outcomes, other clinical data, and so on) stored in a Microsoft Excel file suitable for EZR. All personal data was completely anonymized. EZR (Saitama Medical Center, Jichi Medical University, Saitama, Japan) is a graphical user interface for R (The R Foundation for Statistical Computing, Vienna, Austria), which is used for statistical analysis in many studies. In order to obtain the dataset of the trial and use for other studies, another ethics approval (from the trialists' institution and/or about the new study) will be necessary. A fee may be required for preparation of a new ethics approval.

### IPD sharing plan summary

Available on request

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	14/07/2017		Yes	No