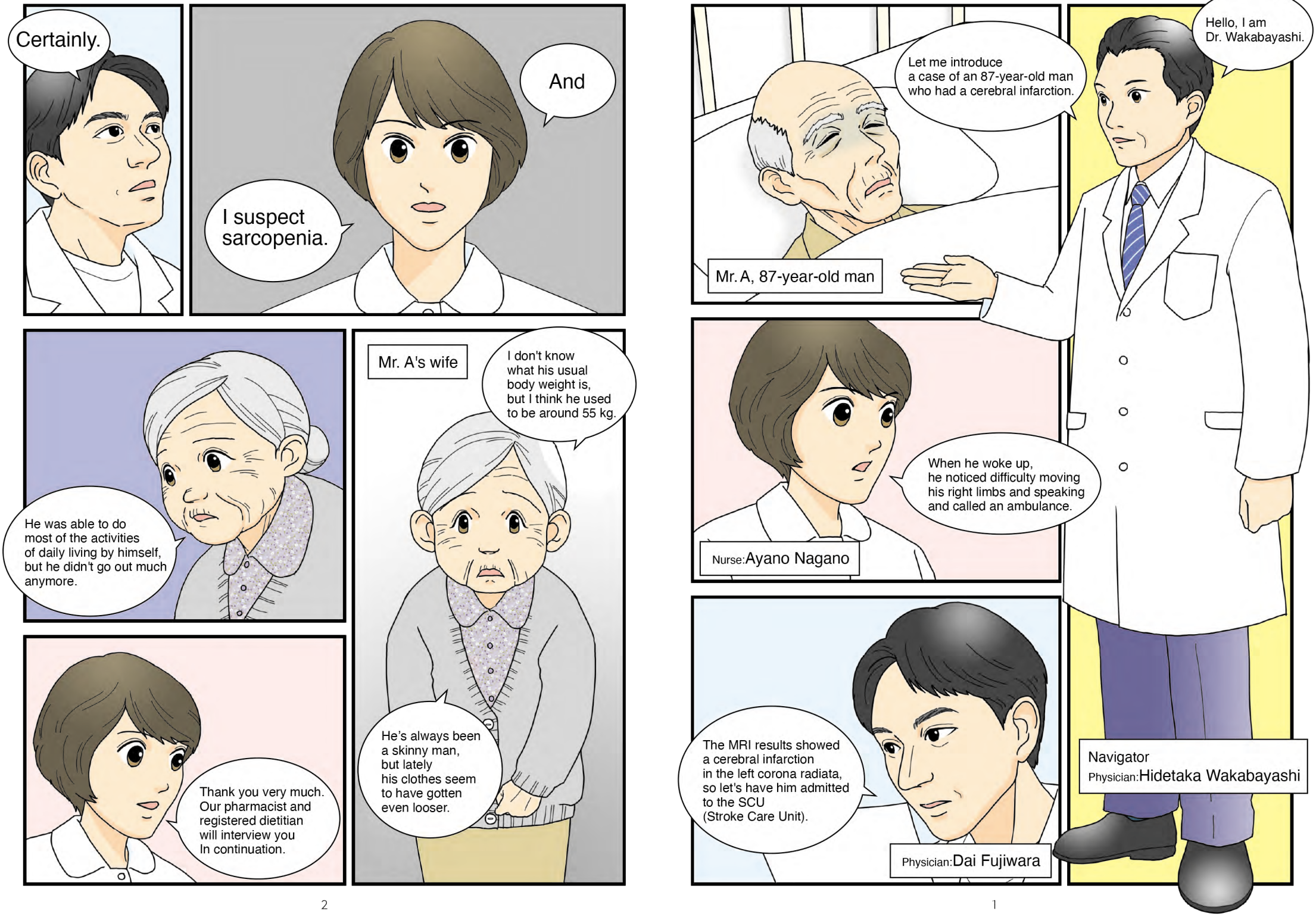
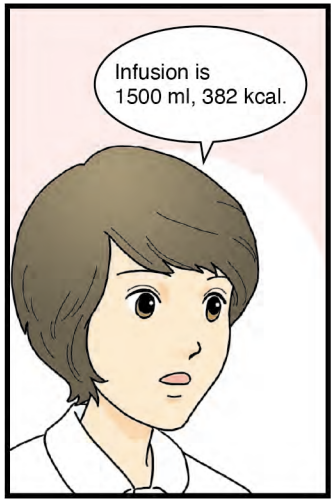
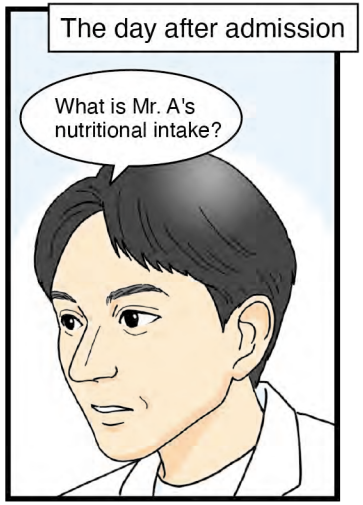
Rehabilitation Nutrition in comic book

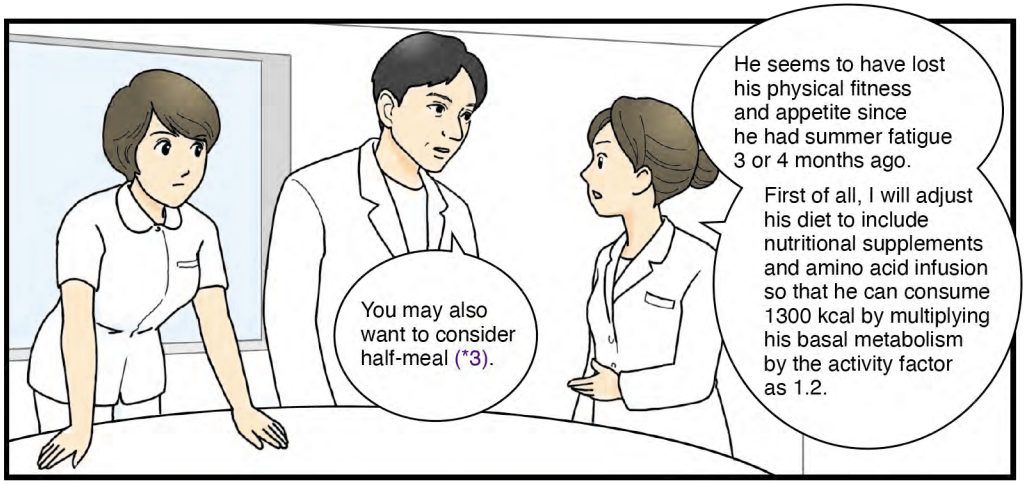
Vol.1 Acute care hospital edition

From “Can't” to “Can” with Rehabilitation Nutrition


Hello, I am Dr. Wakabayashi.
Let me introduce a case of an 87-year-old man who had a cerebral infarction.
Mr. A, 87-year-old man
When he woke up, he noticed difficulty moving his right limbs and speaking and called an ambulance.
Nurse:Ayano Nagano
The MRI results showed a cerebral infarction in the left corona radiata, so let's have him admitted to the SCU (Stroke Care Unit).
Physician:Dai Fujiwara
Navigator
Physician:Hidetaka Wakabayashi
Certainly.
And
I suspect sarcopenia.
He was able to do most of the activities of daily living by himself, but he didn't go out much anymore.
Thank you very much. Our pharmacist and registered dietitian will interview you In continuation.
Mr. A's wife
I don't know what his usual body weight is, but I think he used to be around 55 kg.
He's always been a skinny man, but lately his clothes seem to have gotten even looser.







*3 Half-meal: Meal that has been adjusted to be easier to eat by reducing the serving size by half.
※ Climeal is an oral nutrition supplement that provides 200kcal of energy,7.5g of protein and various other nutrients.

Mr. A's condition at the time of hospitalization

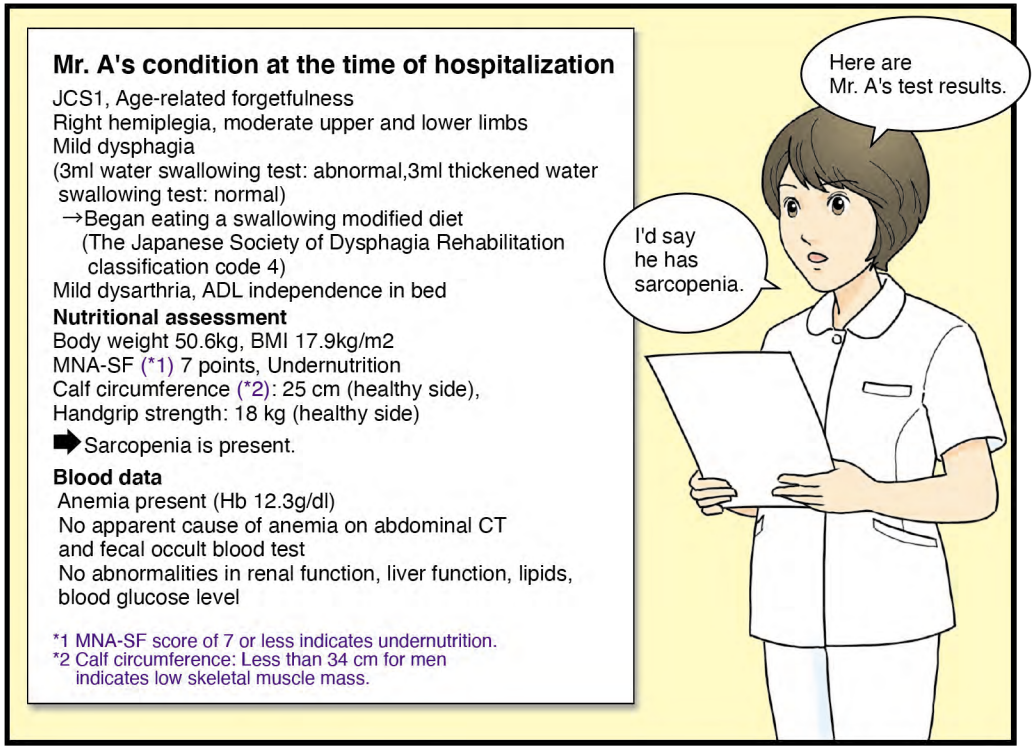
JCS1, Age-related forgetfulness
Right hemiplegia, moderate upper and lower limbs
Mild dysphagia
(3ml water swallowing test: abnormal,3ml thickened water swallowing test: normal)
→Began eating a swallowing modified diet
(The Japanese Society of Dysphagia Rehabilitation classification code 4)
Mild dysarthria, ADL independence in bed

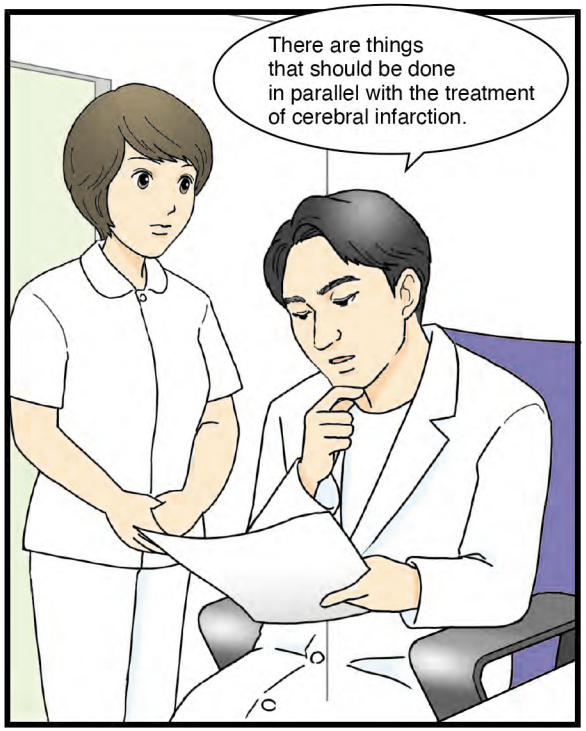
Nutritional assessment
Body weight 50.6kg, BMI 17.9kg/m2
MNA-SF (*1) 7 points, Undernutrition
Calf circumference (*2): 25 cm (healthy side),
Handgrip strength: 18 kg (healthy side)

➡Sarcopenia is present.

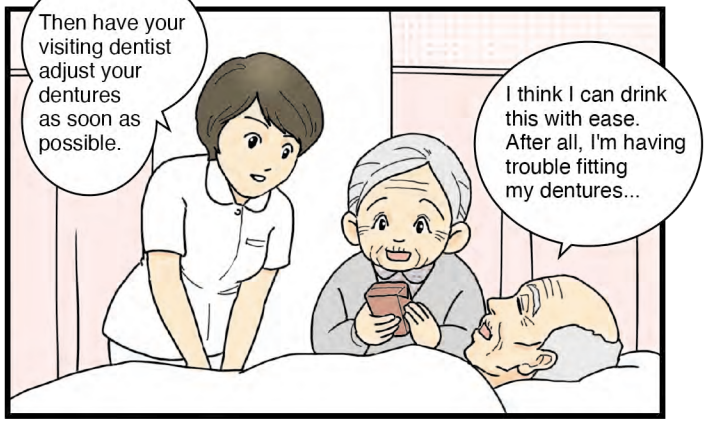
Blood data
Anemia present (Hb 12.3g/dl)
No apparent cause of anemia on abdominal CT and fecal occult blood test
No abnormalities in renal function, liver function, lipids, blood glucose level

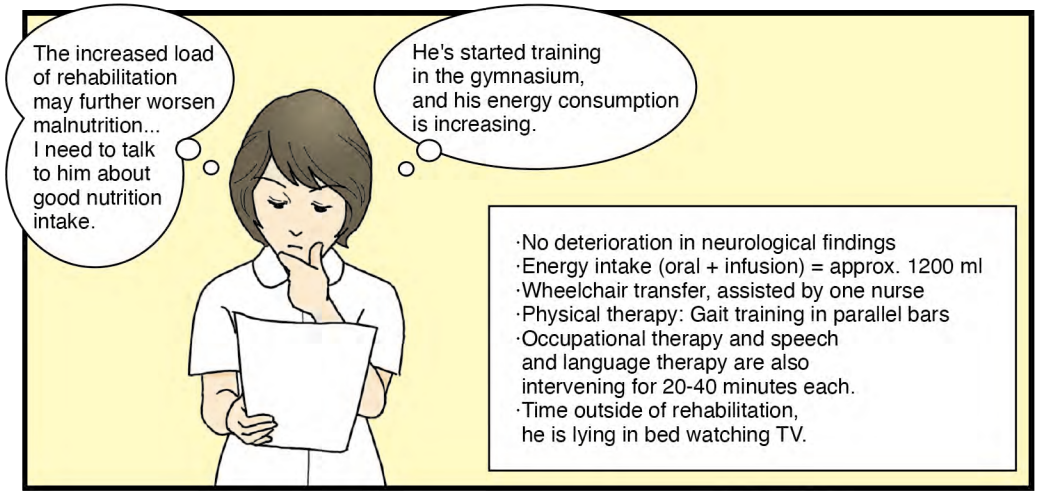
*1 MNA-SF score of 7 or less indicates undernutrition.
*2 Calf circumference: Less than 34 cm for men indicates low skeletal muscle mass.

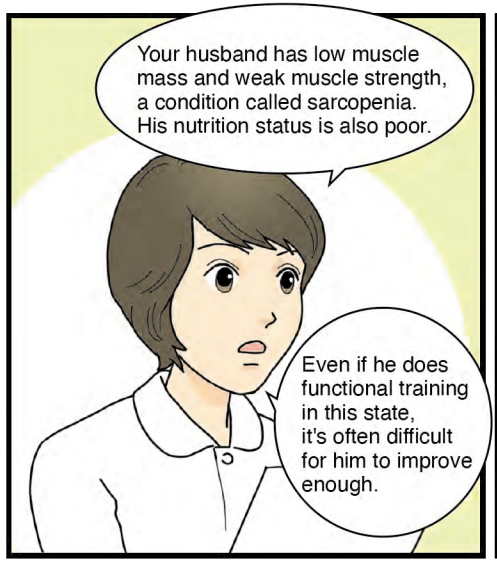


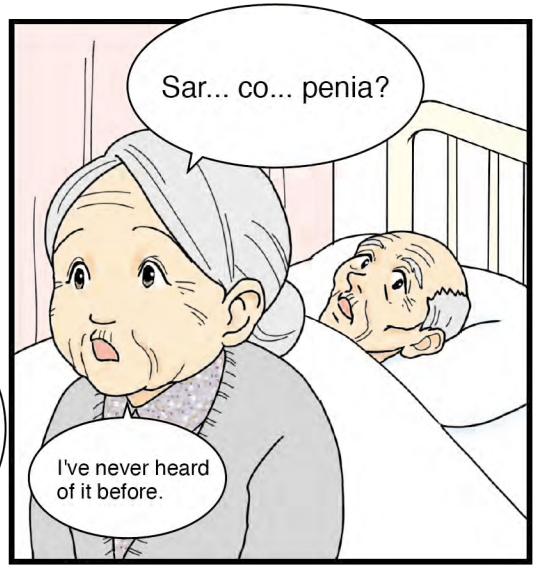


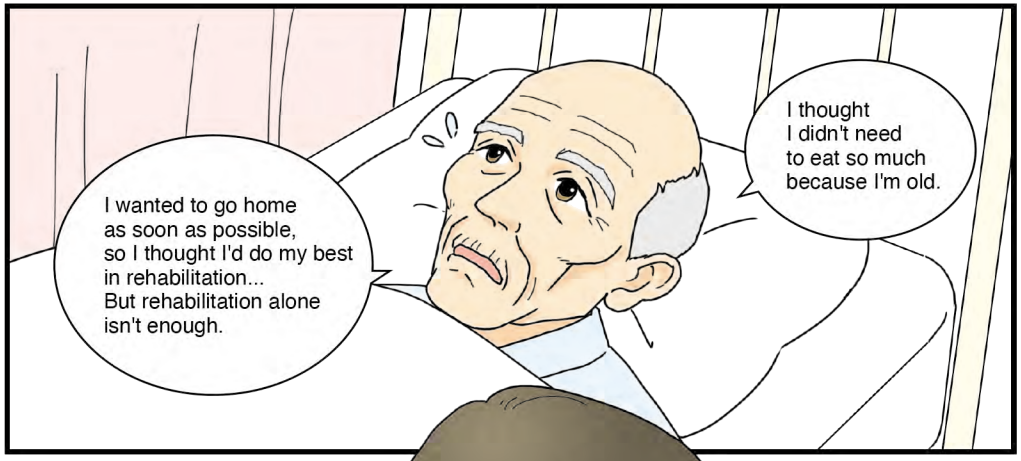
Day 4 of hospitalization









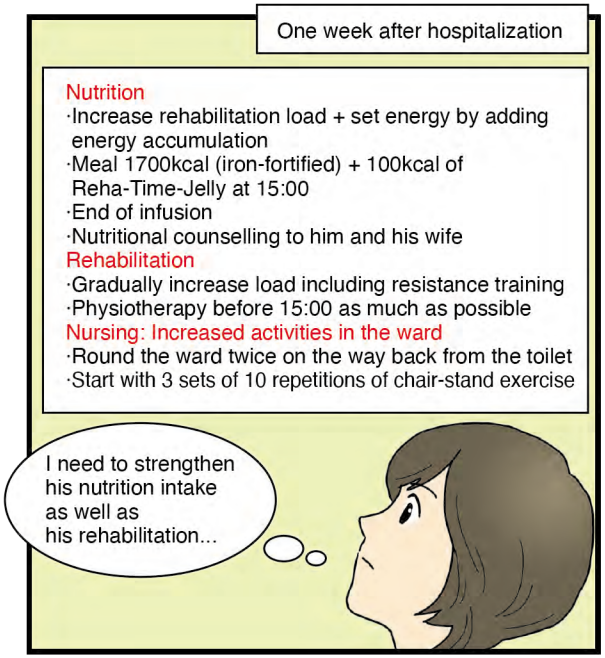


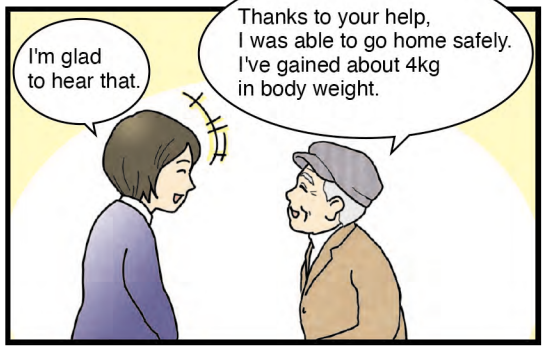
One week after hospitalization

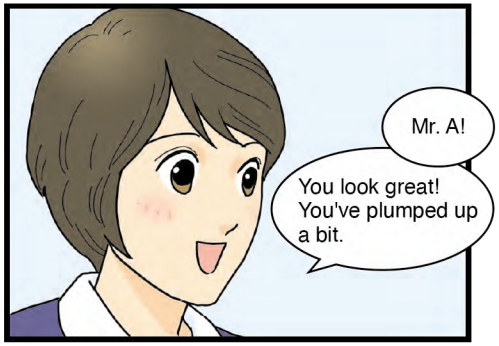
Nutrition
·Increase rehabilitation load + set energy by adding energy accumulation
·Meal 1700kcal (iron-fortified) + 100kcal of Reha-Time-Jelly at 15:00
·End of infusion
·Nutritional counselling to him and his wife

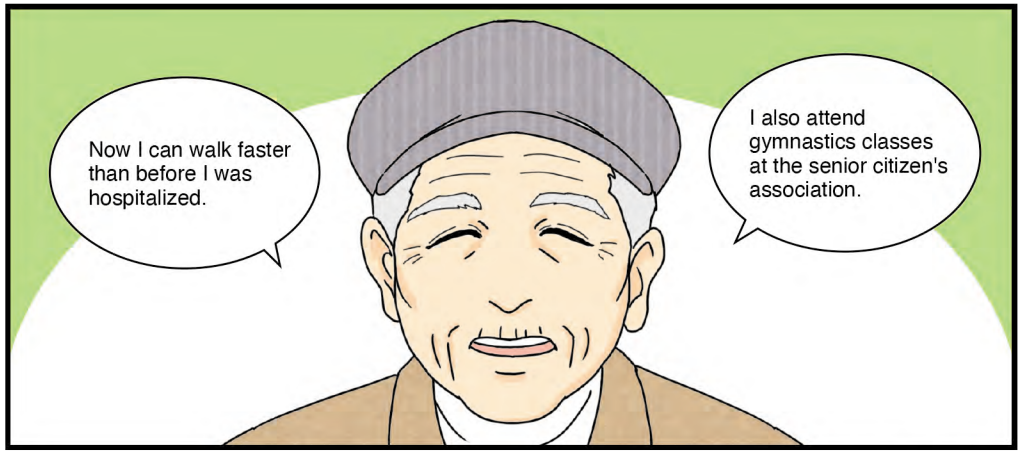
Rehabilitation
·Gradually increase load including resistance training
·Physiotherapy before 15:00 as much as possible

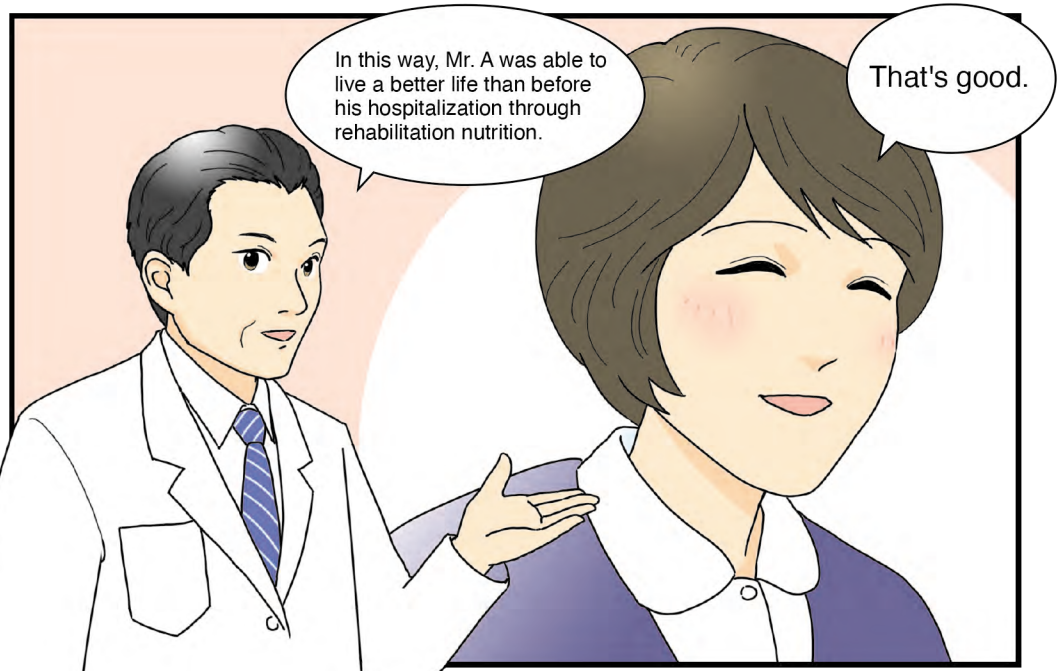
Nursing: Increased activities in the ward
·Round the ward twice on the way back from the toilet
·Start with 3 sets of 10 repetitions of chair-stand exercise











·Oral intake of 1800 kcal
·Weight 50.6kg→51.0kg
·Calf circumference 25cm,
Handgrip strength 20kg
·Independent walking in the ward using a four-wheeled walker

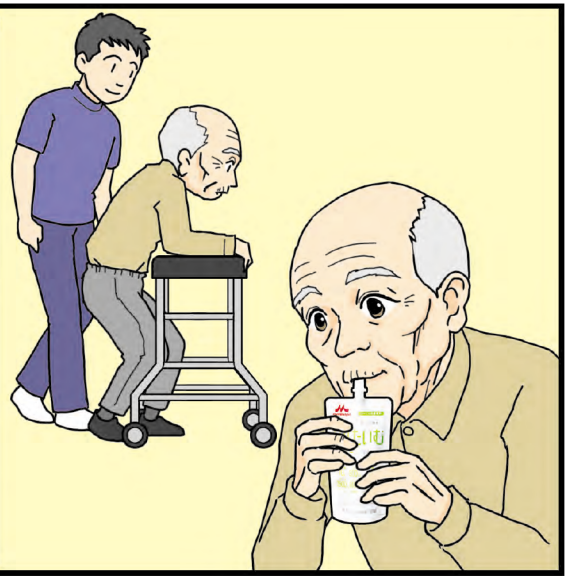
There was no deterioration in nutritional status or sarcopenia, and interventions and progress were transferred with a rehabilitation nutrition summary.

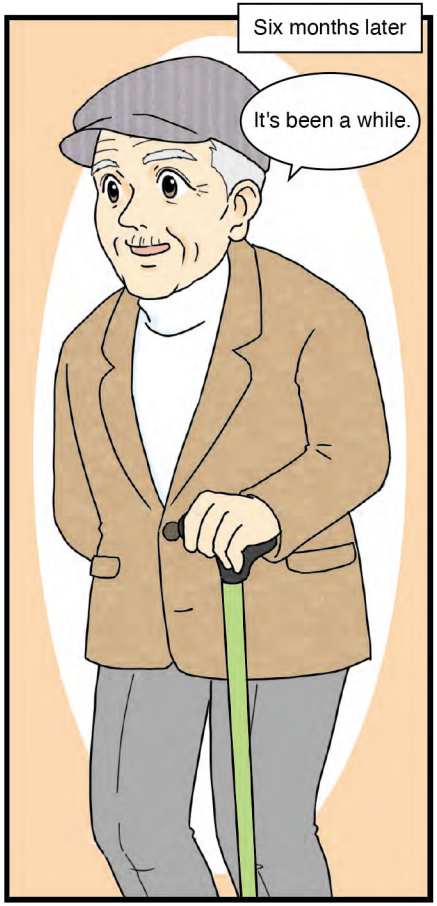
In the acute phase, sarcopenia and nutritional status are likely to deteriorate.

Therefore

Early detection and early intervention are essential.
Another important goal is to “connect the patient to next without worsening the status”.

If the patient is to be discharged home, specific measures and plans for sarcopenia that can be continued at home should be discussed with the patient, family, and related health care professionals.

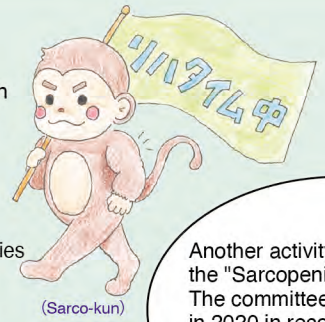




② Sarcopenia Committee

Sarcopenia assessment on admission
Nurses: Evaluation of muscle mass
Physical therapist: Evaluation of handgrip strength and physical function
Registered dietitian: Determination of sarcopenia and investigation of causes

Countermeasures for sarcopenia
Sarcopenia card displayed at bedside
(Mascot character: Sarco-kun)
Explanation of sarcopenia to patients and their families
Nutritional intervention
(nutrition fortification, BCAA, vitamin D)
Nutritional supplements are taken after physical therapy intervention
Nurses conducted petit rehabilitation
(chair-stand training, thigh-raising training, etc.)
Countermeasures for sarcopenic dysphagia
→Intervention by speech language pathologist, certified nurse in dysphagia nursing, and registered dietitian

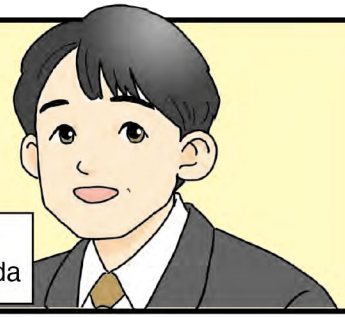


(Sarco-kun)

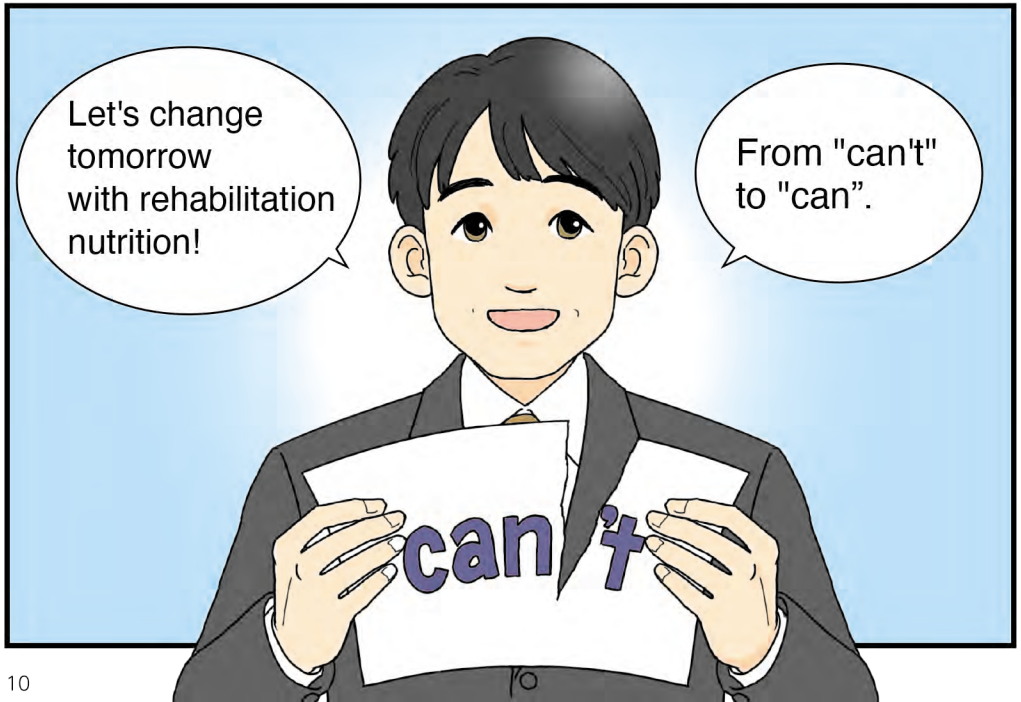
Another activity is the "Sarcopenia Committee". The committee was established in 2020 in recognition of the need to address sarcopenia throughout the hospital.

Increasing “awareness” and “connecting” Leveraging strengths

It's a team approach to rehabilitation nutrition.



Navigator
Physician:Keisuke Maeda

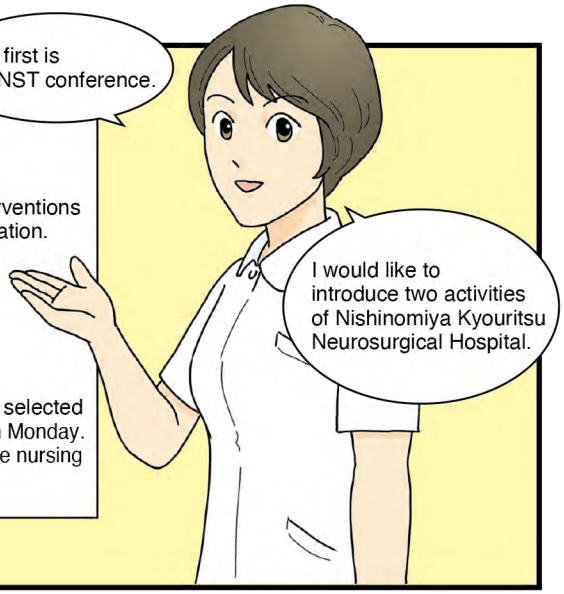


The first is the NST conference.

①NST (*4) Conference

Objective
·To identify patients who need nutritional interventions through periodic assessment after hospitalization.
·Evaluate from the perspective of nursing.

Contents
·Body weight measurement of all patients on weekends.
·Every Sunday, nurses in each ward hold an NST conference for all patients.
·Patients requiring nutritional intervention are selected and the ward registered dietitian is informed on Monday.
·The content of the conference is recorded in the nursing record and the information is shared.



I would like to introduce two activities of Nishinomiya Kyouritsu Neurosurgical Hospital.

*4 NST: Nutrition Support Team

The following is a summary of the three nursing perspectives in conferences: “activity, excretion, and nutrition”.

Activity
Is there an increase in activity on the ward?
Frequent urination, frequent trips to the toilet
Presence of restlessness, increased muscle tone, involuntary movements, etc.
Is there any low activity?
Daytime somnolence → Need to adjust sleep rhythm
Low activity → Requires early mobilization andbedside rehabilitation
Are there any factors that limit activity, such as an indwelling urinary catheter?
Is physical restraint necessary?

Excretion
Excretion is an important nutritional care
Is there any decrease in absorption due to diarrhea?
Is there a decrease in appetite due to constipation?
Water intake, fiber, medications, activity status

Nutrition
Food intake status
Any oral problems or dysphagia
Factors contributing to body weight loss or gain
Presence of diuretics and edema, activity
Factors for lack of appetite
Food preferences, can they bring food to the hospital?
Depressive tendencies
Is the patient affected by medication?

CLINICO delivers “Hope” through “Food”

Reha-Time Jelly gives you a refleshing boost !

Reha-Time Jelly

Muscut flavor　Peach flavor　Honey lemon flavor　Amanatsu flavor

per pouch (120g)

Protein	Energy
10.0g	100kcal
BCAAs 2,500mg (including 1,400mg of leucine)	Vitamin D 800IU(20μg)

Delicious daily nutritional support for your happiness life ♬

Enjoy Climeal

Yogurt flavor　Strawberry flavor　Banana flavor　Corn soup flavor

Coffee flavor　Milk tea flavor　Rich milk flavor　Apple milk flavor

per 1 pack (125ml)

Protein	Energy
7.5g	200kcal
Fiber 2.5g	LAC-Shield* 10 billion pieces

*“LAC-Shield” is the registerd trademark in Japan by MORINAGA MILK INDUSTRY CO., Ltd.

Rehabilitation Nutrition in comic book

Vol.1 Acute care hospital edition

From “Can't” to “Can” with Rehabilitation Nutrition

Original Story	Ayano Nagano
Supervising director	International Association of Rehabilitation Nutrition (IARN) Hidetaka Wakabayashi, Dai Fujiwara, Keisuke Maeda, Saori Imura
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