Case Study

To help you understand how to use the QUEST worksheets, a case study is presented below. This case study involves occupational therapy services provided on a recovery ward.

Facility Information:

Objects: People with cerebrovascular disease, head injury, higher brain dysfunction, musculoskeletal disorders, and respiratory disease living in K-city and surrounding areas

Services: Individual intervention (at least 1 hour a day), home visit/evaluation before discharge

Purpose: To enhance patient's QOL, maximize their functional recovery and enable them to lead a fulfilling life in their familiar community or home

Number of occupational therapists (full-time and part-time): 27 full-time occupational therapists

Before completing the QUEST worksheets, a SWOT analysis was conducted to identify strengths, opportunities, weakness, and threats relating to the occupational therapy services provided for patients. The SWOT analysis was undertaken to develop an understanding of the overall positive and negative issues faced by the occupational therapy service.
Results of the SWOT analysis outlined below:

Strengths	Weaknesses
・ The role of occupational therapy is well known, and multidisciplinary cooperation is well conducted ・ The number of staffs is secured and the number of daily rehabilitation credits can be secured ・ Various experiences can be gained through consignment work (home renovation projects, early-stage intensive dementia care projects, and long-term care insurance projects) and intra-association transfers (to elderly care facilities and home-visit rehabilitation) ・ The hospital is located in a welfare zone, and rehabilitation can be provided in an environment rich in nature ・ Sufficient space in the occupational therapy rooms ・ The hospital has a long history as a rehabilitation hospital and has accumulated experience in rehabilitation of stroke patients ・ An environment where consultation is available	・ Uneven distribution of committee members who perform non-clinical duties ・ The number of rehabilitation credits fluctuates due to the staff absences at short notice ・ There is a gap in motivation for learning ・ Insufficient educational system, including training for the new staff members ・ Insufficient knowledge and skills to deal with the increasing number of patients with internal diseases ・ The number of staffs who can provide rehabilitation services for internal diseases is uneven, and information is not being shared ・ The facility is getting deteriorated ・ New equipment has not been installed ・ It is difficult to reflect the opinions of the occupational therapy department in hospital policies ・ Information on staff members who have been transferred by consignment work is not

from supervising and educational perspective ・ There are staff members of all age ranges, and learning opportunities for novice therapists and in-hospital training ・ The work environment is well maintained (welfare, infection control, etc.) ・ The occupational therapy department provides an environment in which staff members can easily express their opinions ・ Tools for communicating and sharing information are available	available. ・ Insufficient rehabilitation services with evidence ・ Many staff members have experience only in recovery phase rehabilitation
Opportunities	Threats
・ Opportunities to participate in seminars and congresses ・ Financial support for seminars and congresses ・ Exemption from duties for seminars and congresses ・ The facility is commissioned by the K-city (home renovation project, early-stage intensive dementia care project, and long-term care insurance project) ・ Gain experience in the association's elderly care facilities and home-visit rehabilitation ・ Participation in prefectural association activities ・ Opportunities to interact with acute care hospitals ・ Opportunities being lecturers	・ Reluctance to discuss topics and new initiatives ・ Fluctuating occupational therapy prescriptions ・ Work is restricted due to the COVID-19 (information sharing with families, full-time outsourcing) ・ Poor public transportation for outpatients and patients' families

From the SWOT analysis, quality issues were identified to focus the development of SMART indicators on significant concerns that impact the delivery of occupational therapy services. The quality issues identified are outlined below.

Quality Dimensions	Quality Issues
APPROPRIATENESS	・Information on consignment work and intra-association facilities is not well shared, and human resources are not fully utilized
SUSTAINABILITY	・There is a gap in experience due to the lack of a human resource development system
ACCESSIBILITY	・The number of occupational therapy prescriptions fluctuates, and when the number of prescriptions increases, the number of rehabilitation credits per patient is not sufficient ・Some patients who are not prescribed occupational therapy may have cognitive decline or decline in ADL/IADL, but occupational therapy is not be provided due to the lack of prescription
EFFICIENCY	・The use of new evaluation batteries and rehabilitation equipment is low, and existing resources are not fully utilized
EFFECTIVENESS	・Inadequate provision of evidence-based rehabilitation.
PERSON-CENTREDNESS	・The COVID-19 pandemic resulted in the fewer opportunities for families to visit patients and observe occupational therapy sessions
SAFETY	・Inadequate risk management capacity for patients with internal diseases or other patients requiring urgent care

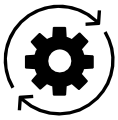
Step 1: Determine quality expectations

Consider the viewpoint of others for your services such as people receiving services, referral sources and funding agencies. Sample questions for consideration are provided for each quality dimension.

APPROPRIATENESS : What knowledge and skills are necessary to ensure the right services are provided at the right time and right place to the right person?	・Regular debriefing sessions for staff receiving consignment work and joint study groups and case studies in the association should be held
SUSTAINABILITY : What resources are required for long term service provision?	・Newcomer training system (preceptor system) and a clear policy for the occupational therapy department of the hospital and the creation of a clinical ladder are required
ACCESSIBILITY : What are acceptable timelines and costs for service?	・For patients who do not have an occupational therapy prescription, the occupational therapist is required to approach the doctor about the need for a prescription
EFFICIENCY : What are productivity expectations relating to use of resources (e.g. staffing and equipment)?	・It is advisable to hold study groups in the occupational therapy department for new evaluations and equipment, as well as demonstrations of actual use for existing resources
EFFECTIVENESS : What research evidence guides the provision of service?	・It is advisable for the department to measure the effectiveness of occupational therapy and set specific evidence-based evaluations and interventions (e.g., MTDLP)
PERSON-CENTREDNESS : What do people receiving services want?	・During occupational therapy, it is advisable to take videos of daily living (in the ward) and communicate progress to the family
SAFETY : What are expectations relating to safety? What are significant risks to safety?	・The patient is expected to engage in occupational therapy under the doctor's prescription and in compliance with rehabilitation standards ・Vital signs indicate that signs of risk should not be overlooked and should be reported to the doctor when necessary

Step 2: Define SMART indicators

Identify SMART indicators that measure performance in relation to quality expectations

QUALITY DIMENSION	CORE QUALITY INDICATORS	SMART QUALITY INDICATORS	QUALITY PERSPECTIVE
APPROPRIATENESS	Availability of competent occupational therapists	・Number of joint study groups and case study briefings held with staff receiving consignment work and staff members of intra-association ・4th to 6th year: Congress presentations (Prefectural congress or above) 7th year and up: Congress presentations (Regional (Kinki) congress or above)	 Structure
SUSTAINABILITY	Long term supply of resources	・1st to 3rd year: Completion of common training for incumbent ・4th to 6th year: Student supervision (attendance at clinical supervisor training after the 5th year), preceptor ・7th year and up: Full-time work, participation in accredited occupational therapy programs and workshops organized by the JAOT and other associations	 Structure
ACCESSIBILITY	Ability to access services	・Number of new prescriptions for patients without occupational therapy prescriptions at the time of admission	 Process
EFFICIENCY	Optimal use of resources	・Number of study groups for evaluation and equipment usage ・Number of times new evaluation methods or instruments are used	 Process
EFFECTIVNESS	Success in attaining occupational therapy goals	・Number of occupational therapy practices utilizing MTDLP	 Outcome
PERSON-CENTREDNESS	Satisfaction throughout service delivery	・Patient satisfaction with occupational therapy program	

			Outcome
SAFETY	Incidents resulting in harm	・ Number of near-misses and incidents of injuries and other adverse events during occupational therapy interventions in patients with internal disabilities	 Outcome

Clarify each SMART indicator and the source of information, calculation method, definition, and reporting. SMART indicators should be established with Specific, Measurable, Agreed upon, Relevant, and Timely in mind.

CORE INDICATOR	AVAILABILITY OF COMPENTENT OCCUPATIONAL THERAPISTS
Quality Dimension:	APPROPRIATENESS
SMART Indicator:	・Number of joint study groups and case study briefings held with staff receiving consignment work and staff members among associated facilities
Calculation:	Number of workshops, case studies, etc. / Number of people in consignment work or associated facilities
Definitions required:	Consignment work and study groups with staff members among facilities Consignment work: City's home improvement subsidy program, city's early intensive dementia support, and secondment to the city's long-term care insurance division Associated facilities: Long-term care facilities for the elderly, home-visit rehabilitation
Potential data sources:	Materials used in study groups, etc.

CORE INDICATOR	AVAILABILITY OF COMPENTENT OCCUPATIONAL THERAPISTS
Quality Dimension:	APPROPRIATENESS
SMART Indicator:	・4th to 6th year: Congress presentations (Prefectural congress or above) ・7th year and up: Congress presentations (Regional (Kinki) congress or above)
Calculation:	Number of congress presentations/Number of corresponding presentations (4th year or more)
Definitions required:	Congress presentations sponsored by prefectural associations and various associations since the beginning of the fiscal year. *Applicants are those in their 4th year or more, and staffs on shortened hours or maternity leave are exempt
Potential data sources:	Fiscal Year-End Summary

CORE INDICATOR	LONG TEAM SUPPLY OF RESOURCES
Quality Dimension:	SUSTAINABILITY
SMART Indicator:	・1st to 3rd year: Completion of common training for incumbent ・4th to 6th year: Student supervision (attendance at clinical supervisor training after the 5th year), preceptor ・7th year and up: Full-time work, participation in accredited occupational therapy programs and workshops organized by the JAOT and other associations
Calculation:	Number of trainings attended, completed and certified for each training session, and number of student supervision and preceptor assignments

Definitions required:	Number of times of attendance at common training programs for incumbents, post-graduate education programs sponsored by prefectural associations, and workshops sponsored by associations, etc. *For staff members who work short hours, etc., on-demand training programs created by the Occupational Therapy Department are available
Potential data sources:	Training participation report, list of students and preceptors in assignments by year

CORE INDICATOR	ABILITY TO ACCESS SERVICE
Quality Dimension:	ACCESSIBILITY
SMART Indicator:	Number of additional prescriptions for patients without occupational therapy prescriptions at the time of admission
Calculation:	Number of additional prescriptions/months
Definitions required:	Additional prescriptions for occupational therapy for patients who do not have an occupational therapy prescription at the time of admission (e.g., motor system disorders) and who have cognitive decline or decline in ADL and IADL abilities
Potential data sources:	Electronic clinical record

CORE INDICATOR	OPTIMAL USE OF RESOURCES
Quality Dimension:	EFFICIENCY
SMART Indicator:	Number of study groups for evaluation and use of equipment
Calculation:	Number of study groups held
Definitions required:	Number of study groups on the use of less frequently used evaluations and equipment in the occupational therapy department
Potential data sources:	Materials used in study groups, etc.

CORE INDICATOR	OPTIMAL USE OF RESOURCES
Quality Dimension:	EFFICIENCY
SMART Indicator:	Number of times each new evaluation/device has been used
Calculation:	Number of evaluations and equipment used/month
Definitions required:	Equipment that is used rarely (or newly introduced) in the occupational therapy department: number of evaluation and equipment used

	Standard testing equipment: Management Tool for Daily Life Performance (MTDLP), etc. High-cost assistive devices: HAL (robot), IVES (low-frequency therapy device)
Potential data sources:	Electronic clinical record
Countermeasure	Let more experienced staff use it first, and educating other staff

CORE INDICATOR	LONG TERM SUPPLY OF RESOURCES
Quality Dimension:	EFFECTIVENESS
SMART Indicator:	Number of occupational therapy practices utilizing MTDLP
Calculation:	Number of occupational therapy practices utilizing MTDLP / Number of patients who can apply MTDLP
Definitions required:	Exclusions; patients with cognitive impairment, psychiatric or higher brain dysfunction who have difficulty in self-assessment, and patients who do not agree to utilize MTDLP Occupational therapy goals; Independence in ADLs, safe work in the field under the supervision of the family (safety check), safe role in simple cooking at home, independent use of chopsticks and eating out at a soba restaurant, etc.
Potential data sources:	Electronic clinical record

CORE INDICATOR	SATISFACTION THROUGHOUT SERVICE DELIVERY
Quality Dimension:	PERSON-CENTREDNESS
SMART Indicator:	Patient satisfaction with occupational therapy program
Calculation:	Average satisfaction (on a 10-point scale) with occupational therapy services questionnaire
Definitions required:	Occupational Therapy Services: Initiatives related to occupational therapy for hospitalized patients
Potential data sources:	Questionnaire on Occupational Therapy Services

CORE INDICATOR	INCIDENTS RESULTING IN HARM
Quality Dimension:	SAFETY
SMART Indicator:	Number of near-misses and incidents of injuries and other adverse events during occupational therapy interventions in patients with internal

	disabilities
Calculation:	Number of near-misses and incidents of injuries and other adverse events in patients with internal disabilities
Definitions required:	Subject's injury: physical pain requiring medical intervention Near-miss: An event that does not lead to an adverse event but is one step short of a direct cause.
Potential data sources:	Near-miss Sheets and Accident Report Forms