

## Japanese Specialists Attitudes Toward Scheduled Care in Emergency Psychiatric Units: Development of a Care Pathway

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### Abstract

**Background:** Over 90 percent of psychiatric inpatients in Japan are discharged within a three-month period. Further efforts to reduce the duration of inpatient care are needed. Medical pathways that assure scheduled care are uncommon in psychiatry, and we collected the opinions of specialists regarding a tentative standard pathway.

**Methods and Findings:** Two target groups that included 114 certified hospitals with an emergency psychiatric unit and 80 psychiatry departments of universities were requested to fill two tables for scheduled care for an example case vignette. The staff at 25 hospitals and 14 universities replied to our questionnaire. Many of the responses overlapped between the two groups. Their answers were used to plan a medical schedule with the aim of discharging patients within a shorter period of time.

**Conclusion:** Despite several study limitations, we proposed a provisional pathway based on the agreements between the two groups. Standard psychiatric care pathways should become available in Japan.

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### Introduction

An authorized annual report [1] found that 4,814 persons were admitted to private psychiatry hospitals in Japan on June 30, 2012. Of them, 2,366 (49.1%) were discharged within a month, and an additional 2,101 (43.6%) were discharged within three months. Ninety percent or more of inpatients are discharged within three months in Japan. Based on such data, the Japanese Ministry of Health, Labour and Welfare (MHLW) [2] concluded in 2012 that the duration of admission for all inpatients should be less than a year, except for those diagnosed as having a severe and chronic state. To reduce the duration of inpatient care and to activate collaboration among hospital staff, scheduled inpatient psychiatric care was newly implemented in the national payment system for medical expenses in Japan in 2014. For patients diagnosed as having schizophrenia or other related disorders or mood disorders and admitted to a certified emergency psychiatric unit, the staff of the unit, including the psychiatrist, nurses, and social workers, should plan the scheduled care within 7 days. The hospital can charge for additional medical expenses if the patient is discharged within 60 days. Medical pathways are

available for various settings in Japan, assuring scheduled care in the psychiatry unit that is payable by the payment system.

While treatment pathways are available in the field of psychiatry, their utilization is less common than in other medical fields, such as surgery. In 2014, we reported the utilization of treatment pathways in 130 (10.7%) out of 1,213 private psychiatric hospitals nationwide [3]. A survey by the Japanese Society for Clinical Pathway [4] claimed that both the diversity of psychiatric conditions among patients and the fluctuating conditions of individual patients (so-called 'variance') makes the utilization of treatment pathways difficult in the field of psychiatry. A standard pathway applicable to emergency psychiatric cases admitted to the hospital is yet to be devised in Japan, although diverse pathways are used by hospitals around the country. The formats of these pathways require standardization. In addition, though many domestic reports evaluated the effectiveness of pathways that the authors had developed a reduced length of stay was the main reported outcome [5,6] and the reports did not analyze other quality indicators, such as clinical course and subjective quality of life [7,8]. Therefore, we could not obtain any benchmark results, unlike the situation in other medical fields.

Efforts to improve these pathways require experience gained from advanced examples.

To identify the preferred items in a standard pathway, we conducted a case vignette study on inpatient care pathways in two groups of psychiatric specialist institutions.

To obtain a consensus among experts regarding the items of a standard pathway, we targeted two groups of specialists who were given incentives for discharging patients early. One of these specialist groups was affiliated with hospitals containing psychiatric emergency care units certified by the payment system. In Japan, 114 units have been certified; according to an annual report for 2012, a total of 4,814 among 302,156 inpatients were admitted to these units.

The other target group was affiliated with departments of psychiatry at universities. Japan has 80 universities (51 public and 29 private) in total, with 83 hospitals that are equipped with 5 certified emergency units. According to the above-mentioned annual report, 3,259 persons were admitted to the psychiatry units of Japanese universities on June 30, 2012. Of them, 1,263 patients (38.7%) were discharged within a month, while 1,222 (37.4%) were discharged within three months. Most of the members of each department were psychiatrists who worked at the university hospital. Their career as psychiatrists typically started in university hospitals. In addition to evidence from medical literature, trials conducted by these psychiatrists also contribute to the care provided at university hospitals. The laboratories in these departments are often sources of knowledge. After receiving specialists' training, these psychiatrists work in various psychiatry settings around the nation. In other words, university hospitals decide the fundamental attitude towards care in psychiatry units.

## Method

### Study 1

We mailed a questionnaire (see Appendix) nationwide to all 114 certified hospitals with an emergency psychiatric unit. The staff of each unit answered questions regarding the pathways in use and designed a care pathway for a model case using a case vignette described by [9] that consisted of a subject with severe persecutory delusions requiring involuntary hospitalization. This sample case appeared in a previous questionnaire regarding emergency care. Therefore, some of the specialists who received our questionnaire might have been acquainted with it.

Our questionnaire contained two tables consisting of a medical treatment schedule (sheet A) and a case record (sheet B). This style resembled that of samples included in the General Pathway for Collaboration in Community Care authorized by Chiba Prefecture [10]. We filled in several basic items, such as age and sex, beforehand. The staff members were asked to complete the two tables by filling in the contents of care supplied during each period (sheet A) and beneficial information pertinent to the case record (sheet B). The assessment started in the middle of December 2013 and was completed by the end of January 2014. We counted the number of same answers among the replies.

Hence, all the answers were counted, and more frequent answers were regarded as being more common.

### Study 2

We mailed a questionnaire to the psychiatry departments of all 80 universities. They were asked to complete the questionnaire based upon discussions with the other staff members of their hospitals. The questionnaire contained items pertaining to the use of medical pathways. It presented a sample case record and two sheets of tables derived from study 1, and the respondents were requested to give their opinion on the contents of the tables. The addition or deletion of columns or items was encouraged. Furthermore, there were also questions pertaining to the efforts of psychiatrists to follow-up discharged patients. The assessment was started in the middle of December 2014 and was continued until the middle of January 2015. Similar to study 1, we again counted the number of same answers among the replies. We then added the numbers to those obtained in study 1. Namely, each answer from the two target groups was counted, even though the medical settings were not the same. Since we used a quasi-case in both studies, we did not collect any information on admitted patients. Our study complied with the national guidelines for epidemiological research. The present study was approved by the ethical examination board of the National Center of Neurology and Psychiatry.

## Results

Twenty-five hospitals (21.9%) replied; of them, 20 (17.5% of 114 hospitals) used pathways for several purposes: 11 used them for the treatment of schizophrenia, and 12 used them for decisions regarding discharge from hospital. For the example case, a total of 81 specialists planned a pathway. Each answer was completed by multiple specialists consisting of 7 psychiatrists, 32 nurses, and 7 psychiatric social workers. Sheet A: Medical treatment schedule.

- 1. Time point:** The sheet matrix had columns for the following periods: "in the first week of hospitalization", "1st month", "3rd month", "6th month", "1st year" and "10th year" to plan the treatment. However, our subjects used ordinal columns for other periods, such as "till the second week of hospitalization", "2nd month", "2nd week of hospitalization-10 days before discharge (succession)" and "10 days before discharge to day of discharge."
- 2. Planned target of treatment (Outcome):** As the treatment target, they most frequent and second-most frequent answers for each line were illustrated in the **Table 1**.
- 3. Planned treatment (Tasks):** Many professionals prioritized medication control during the early stage of treatment. As shown above, many of the respondents planned for the discharge of the sample case within three months after hospitalization.
- 4. Collaboration with family practitioner:** For the item concerning family medicine, the respondents planned to communicate with the patient's family practitioner. In Japan, such communications are made by letters because such records are regulated by the national insurance system.

**Table 1** Sheet A: Medical treatment schedule (proposed items and replies).

Time point	At hospitalization	First month	Third month	Sixth month	First year	Tenth year
Planned target of treatment (Outcome)	Improvement of unrest, excited state: 14 Securement of safety: 13	Fixed life rhythm (secured rest and sleep in terms of both quantity and quality): 13 Comprehension and re-check of aim(s) of hospitalization and discharge: 10 Improvement of unrest, excited state: 10	Discharge: 14 Consent to need for medication: 6 Discussion regarding behavior required prior to discharge: 6	Periodic visits to outpatient unit: 9 Stable community life: 6	Periodic visits to outpatient unit: 6 Stable community life: 5 Improvement of unrest, excited state: 5	Coping with early stage of symptom aggravation: 6 Periodic visits to outpatient unit: 5
Planned treatment (Task)	Pharmacological medication: 19 Restriction: 12	Giving instructions for compliance with prescribed medicine(s): 12 Participation in occupational therapy: 12 Psycho-educational intervention: 8	Training for leaving and staying out of the hospital: 12 Self-administration of medication: 8	Examination by a psychiatrist in the outpatient unit: 8 Day care: 6	Examination by a psychiatrist in the outpatient unit: 8 Assessment of symptoms relief: 4	Examination by a psychiatrist in the outpatient unit: 2 Psychological education: 2
Collaboration with family practitioner	Request for a case record: 10 Collection of various pertinent information: 6		Feedback from case record: 6			
Use of social resources	Assessment of history of use of public services (by psychiatric social worker: PSW): 8 Assessment of economic conditions: 6	Provide collected information on support (by PSW): 11 Prepare for inspection of the Grade of Severity of Disability (by PSW): 6	Day care: 6 Provide information regarding medical expense reduction: 5	Day care: 6 Nurses' home visiting service: 2	Support for employment (at work facility in community): 10	

**5. Use of social resources:** The respondents planned the use of 'social participation' support after discharge from hospital.

### Sheet B: Medical record

In addition to the example items provided by us, the participants proposed the items as required steps in the pathway [Table 2].

### Study 2

Fourteen universities (17.5%) replied to the questionnaire. Of them, 7 (50.0% of 14 universities) used treatment pathways for several conditions, including 2 for acute substance intoxication, 1 for the treatment of schizophrenia, and 1 for the examination of dementia. Five universities used a medical pathway only for the administration of modified electroconvulsive therapy (m-ECT). For the example case, a total of 70 specialists (consisting of 18 psychiatrists, 10 psychiatrists and psychiatric nurses, 14 psychiatric social workers, 7 nutritionists, 7 clinical psychologists, 7 occupational therapists, and 7 pharmacists) planned a treatment pathway.

### Sheet A: Medical treatment schedule

Many of the responses overlapped with those in the Table shown for study 1 some of the answers were not associated with a specific time point. Instead, for the items in the planned target of treatment (outcome), the answers "obtain insight" for the 1st month and "setting the target for the future" for the 1st year overlapped among the replies. Such answers did not appear in study 1. Furthermore, "leading a life of self-efficacy" in the 10th

year had 3 replies, whereas it only received one reply in study 1.

Planned treatment (task) had 2 new replies for each of the following items: "evaluating nutrition" and "compliance to medication" at the time of admission, and "assessment of the incentive to work" during the 1st year. 'Collaboration with family practitioner and "requesting follow-up" both obtained two replies, whereas they only received one reply in study 1.

'Use of social resources' obtained two replies for each of following items: "participation in occupational therapy", "peer group for family", and "filing applications with social welfare services" in the 3rd month. Two items "collection of information" on admission and "transition support for employment" in the 3rd month obtained two replies, whereas they only received one reply in study 1.

### Sheet B: Medical record

No replies were obtained for sheet B in study 2. On the other hand, eight replies presented the opinion that diversity among patients should be considered when applying treatment pathways.

No replies were obtained regarding special efforts for the follow-up of discharged patients.

## Discussion

Our studies had several limitations. First of all, not all the hospitals responded to our questionnaire. The small size of the sample exaggerated the opinions. Our method counted the number of similar opinions among the replies, and such a system can easily

Table 2 Sheet B: Medical record.

Category	Proposed item	Replies (number of agreed opinions)
Information at hospitalization	History of use of public services	12
	Personal history before hospitalization	7
	Family information (including relatives who can provide lodging and competent support)	7
Information at discharge	Name of outpatient unit/office	7
	Use of social resources	6
	Ability to achieve self administration	6
Instructions at discharge	Administration (with family members)	11
	Periodic visits to outpatient unit	8
Main point at follow-up after the discharge	Contents of daily life (e.g. appetite, sleep, communication with others)	5
	Both compliance and visits to outpatient unit	3
	Signs emerging before aggravation	3
	Symptoms	3
	Administration	3

overestimate the significance of opinions. Consequently, only two identical replies were required to nominate an item. Of course, because of the small number of responses, the information regarding the use of the pathways might have overlooked some effective efforts. The second limitation was the system used by the hospitals in our studies, which did not allow for long-term stays. In particular, the university hospitals were inclined towards highly specialized care, resulting in a short stay. Such tendencies might influence the attitude of the staff, resulting in a shorter schedule for our example case. The third point that should be taken into account is that our example case did not represent all psychiatric inpatients. Our example case had an involuntary admission, whereas 162,808 (53.9%) of all 302,156 reported inpatients were admitted voluntarily [1]. The majority of admissions in Japan are made with the informed consent of the patient.

Despite the above-mentioned limitations, we were able to use a hypothetical case study to collect many specialists' opinions regarding issues that should be considered when devising pathways applicable to the treatment of psychiatric patients. Our studies represent the first investigation of this issue in Japan.

Not a single answer planned a medical schedule with the aim of discharge in three months. We speculated that the specialists in our studies usually shared the attitude of the need to avoid prolonged hospitalization for more than one year. In addition, their answers indicated that their efforts started with the securing of rest and led to the patient being able to participate in community life after discharge during the early stage of treatment. The second study endorsed the detailed contents of the scheduled care that had been presented by the staff of the emergency units as being a suitable standard pathway.

On the other hand, 15 differences were observed between the responses of the two subject groups; these differences might represent the characteristics of care at university hospitals. For example, an appropriate perception of his/her own medical condition, i.e., "insight," was an outcome to be accomplished in

the first month of stay according to the staff members of university hospitals, while this outcome was included in the objectives for the third month in study 1. Moreover, the involvement of other co-medical staff members, such as nutritionists and pharmacists at the time of admission and occupational therapists during the third month, were items that were only reported by the university staff members. Such items should be included in the pathway for improved versatility.

Although earlier discharge was recommended for our hypothetical subject, study 2 revealed that efforts to trace discharged patients are rare. The pathway was not only a record for care at the admitted hospital, but also that for community-level care. The use of individual records as a pathway similar to a passport has been implemented by several local governments in Japan [10]. These pathways are typically specialized for patients with dementia [11], but other psychiatric disorders will be targeted.

Based on the points of agreement between our studies, we proposed two sheets as a provisional pathway (Table 3). Compared with other pathways, the simple construction is likely to be acceptable to many specialists. Since presenting our pathway to the subjects of the two studies, psychiatric care pathways have become more widely available in Japan. As Jones commented [7], a pathway that has been accepted by specialists allows further qualitative research in the Japanese healthcare context.

To improve our pathway, we have started a new study that will track the care provided to actual patients discharged with severe and chronic states. Specialists in community-level care will participate in this new study, and several items will be added to the tables [Table 3].

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**Table 3** Care pathway.

**Sheet A.** Medical treatment schedule.

Name	Birth date (age), Sex	(y.o.)	Emergency contact details (outpatient unit)			
	Height and Weight	cm kg	Emergency contact details (emergency unit) Family practitioner (psychiatrist)			
Time point Items	At hospitalization	First month	Third month	Sixth month	First year	Tenth year
Planned target of treatment (Outcome)	Improvement of unrest, excited state Securement of safety	<ul style="list-style-type: none"> <li>□ Fixed life rhythm (secured rest and sleep in terms of both quantity and quality)</li> <li>□ Comprehension and re-check of aim(s) of hospitalization and discharge</li> <li>□ Improvement of unrest, excited state</li> </ul>	Discharge  Consent to need for medication  Discussion regarding behavior required prior to discharge	Periodic visits to outpatient unit  Stable community life	Periodic visits to outpatient unit  Stable community life  Improvement of unrest, excited state	Coping with early stage of symptom aggravation  Periodic visits to outpatient unit
Planned treatment (Task)	Pharmacological medication Restriction	Giving instructions for compliance with prescribed medicine(s)  Participation in occupational therapy  Psycho-educational intervention	Training for leaving and staying out of the hospital  Self-administration of medication	Examination by a psychiatrist in the outpatient unit  Day care	Examination by a psychiatrist in the outpatient unit  Assessment of symptoms relief	Examination by a psychiatrist in the outpatient unit  Psychological education
Collaboration with family practitioner	Request for a case record Collection of various pertinent information		Feedback from case record			
Use of social resources	Assessment of history of use of public services (by PSW) Assessment of economic conditions	Provide collected information on support (by PSW)  Prepare for inspection of the Grade of Severity of Disability (by PSW)	Day care  Provide information regarding medical expense reduction	Day care  Nurses' home visiting service	Support for employment (at work facility in community)	

**Table 3** Care pathway.

**Sheet B.** Medical record.

Basic information			Allergy	Emergency contact details (outpatient unit)	
Name	Incompatible drug(s)				Emergency contact details (emergency unit)
Occupation	Height and Weight	cm kg	Incompatible drug(s)	Family practitioner (psychiatrist)	

  

Information at hospitalization	
Date of admission	
Date of onset	
Past history	
History of use of public services	
Personal history before hospitalization	
Family information (including relatives who can provide lodging and competent support)	

  

Treatment progress		
Information at discharge		
Date of discharge	Instructions at discharge	Administration (with family members)
Name of outpatient unit/office		Periodic visits to outpatient unit
Use of social resources	Main point at follow-up after the discharge	Contents of daily life (e.g. appetite, sleep, communication with others)
Ability to achieve self administration		Both compliance and visits to outpatient unit
		Signs emerging before aggravation
		Symptoms
		Administration

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