

tasks, not the needed time for a task to be performed, (2) the study did not take into account the number of such tasks performed by each professional carer, and (3) the number of professional carers rose from 72 to 78 between the two sessions of this research.

Regarding communication route, significantly more staff-staff communication and less staff-form recording were observed in the 8:00–9:00 period. In terms of tools, including form of communication, a prominent increase in face-to-face conversation was recorded. This suggests that information exchange in the form of direct conversation among the staff increased. In the 10:00–11:00 period, however, the rate of staff-staff communication decreased. The use of voicemail, keyboard and reference to records seemed to decrease the rate of direct conversation and staff-staff communication. In terms of tools, a significant increase was seen in the use of voicemail and keyboard as well as reference to records, and the rate of direct conversation in all communication/recording declined. The promotion of the use of such tools in the 8:00–9:00 period also can be expected to curb the rate of increase of communication/recording tasks.

With respect to contents, the following were observed: a decrease of information and an increase of report and confirmation in the 8:00–9:00 period, as well as a decrease of information and an increase of instruction in the 10:00–11:00 period. The possible reasons for the decrease of information in both periods are: (1) the call for a more precise implementation of care plans following the introduction of the system, (2) the increased number of reports and confirmation in place of information, and (3) the diminished necessity for simultaneous communication such as short staff meetings to share information thanks to IT driven devices. Meanwhile, the increase of report, confirmation and instruction around the opening time is presumably due to the preciseness requested by the new insurance system both in the contents of tasks and the time to provide services.

#### *4.3. Possibility of applying information technology*

The outcome of this research highlights the necessity for greater operating efficiency of communication/recording tasks. IT driven devices such as groupware are effective as they facilitate sharing, storage, retrieval and reutilization of information (Shintani, 2000; Nishimura, 2001; Rowe and Brimacombe, 2003). In this research, an increase of report, confirmation and instruction was observed in terms of content of communication. The use of IT driven devices on users and individual progress reports may help reduce the need for report and confirmation (Rowe and Brimacombe, 2003). Also, instruction can be more efficiently conducted when past instructions have been easily stored and can be retrieved and reutilized as needed.

Moreover, when IT driven devices are used, the staff can work more freely with less restrictions of time or space (Nishigaki, 1994; Nishimura, 2001). IT devices also contribute to alleviate the rush of communication/recording tasks, as previously suggested in this research.

Other benefits of IT systems can also be expected for users as the time normally devoted to communication tasks may be spent on the nursing service itself.

Although the use of IT is undoubtedly beneficial, as demonstrated above, we should nevertheless solve some of the most pressing disincentives which include cost, safety, staff

education, and delayed development of user-friendly peripheral tools, in order to efficiently apply IT driven devices.

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## 高齡者のターミナルケア

End of life care for the elderly



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◎遠からず“死”が避けられない状態となり患者の身体的苦痛・精神的苦痛の除去が医療の主眼となるとき、これを“ターミナルケア”とよぶ。“ターミナルケア”の目的は、苦痛・苦悩の緩和により患者のQOLを維持・向上することにある。高齡者の“ターミナルケア”の特徴を考えると、高齡者に特徴的な“終末期”に対する適切なケアのあり方を考えるということである。高齡者の“終末期”に対しては特徴的なケアがありうるということではない。

**Key word** : ターミナルケア, 高齡者, 終末期の定義, 自己決定

### 高齡者における終末期とは

“不治”かつ“末期”の状態が“終末期”と定義されるが、“不治”，すなわち非可逆的進行性の疾患に対して根治が不可能な状態は医学的に定義しやすい。一方，“末期”という用語は時間概念を含み、一般的に定義が困難である。現在罹患している疾患で遠からず死亡すると認められた時点から“終末期”ということができるが、時間的にはおおそ6カ月かそれ以内とすることが多い<sup>1)</sup>。

以上が一般的な“終末期”の定義であるが、これはおおそ非高齡者の悪性腫瘍を想定してのものであり、高齡者の場合は具体的定義がさらに困難でまだ確立されたものはない。このことを受けて現在、終末期ケア、とくに高齡者の終末期ケアに関してはターミナルケアという用語を使用せず、“End-of-life Care(エンドオブライフケア)”という表現を使用することもある。さらには日本老年医学会は終末期の定義から時間概念を省略し、「病状が不可逆的かつ進行性で、その時代に可能な最善の治療により病状の好転や進行の阻止が期待できなくなり、近い将来の死が不可避となった状

態」と“終末期”を定義した(表1)<sup>2)</sup>。本稿では表題のようにターミナルケアという用語を使用する。

### 高齡者のターミナルケアの特徴

#### 1. 高齡者の悪性腫瘍の場合

悪性腫瘍に対するあらゆる根治療法(手術, 放射線, 化学療法)が無効で、放置すれば“死”に至る状態となった時点が“終末期”とすれば、これを判断することは困難ではない。しかし、高齡者の場合は悪性腫瘍の進行速度が非常に緩やかで“終末期”が6カ月を優に超える場合も珍しくない。また、経過が長くなれば、この間に肺炎や心不全、脳卒中など他の急性疾患に罹患し死亡することも多くなり、“死”に至る過程を予測することは非高齡者よりもかなり困難である。

#### 2. 慢性疾患での“終末期”

透析療法が拒否された末期の腎不全、慢性閉塞性肺疾患、治療に不応性の重症心不全、高齡がゆえに手術不能な脳出血やくも膜下出血などが該当する。末期の腎不全や致死的な脳出血の場合は予後(余命)の判断は比較的容易であるが、慢性の心

表 1 日本老年医学会による“終末期”の定義

<p><b>“立場表明”を出す目的</b></p> <p>わが国に生活するすべての人は人生の最終局面である“死”を迎える際に、個々の価値観や思想・信仰を十分に尊重した最善の医療を受ける権利を有する。最善の医療とは単に医学的な知識・技術のみではなく、他の自然科学や人文・社会科学を含めたこの国のすべての知的・文化的成果を還元した医療であると思われる。日本老年医学会はすべての人がこの権利を有すると考え、この権利を擁護・推進する目的で“高齢者の終末期の医療およびケア”に関する日本老年医学会の“立場表明”を表明する。</p>
<p><b>“立場表明”における定義</b></p> <p>“立場表明”で述べる“終末期”とは、「病状が不可逆かつ進行性で、その時代に可能な最善の治療により病状の好転や進行の阻止が期待できなくなり、近い将来の死が不可避となった状態」とする。</p> <p>〔論拠〕高齢者は“終末期”にあると判断されても、わが国では余命を予測するための医学的成績の集積が現状では不十分であり、余命の予測が困難であるため、“終末期”の定義に具体的な期間の規定を設けなかった。</p> <p>“高齢者の終末期”の定義に関しては現在ではこのような曖昧なものであるが、“悪性腫瘍の終末期”、“脳卒中の終末期”、“痴呆疾患の終末期”、“呼吸不全の終末期”など、高齢者に多く不可逆的・進行性の過程をたどることの多い個別疾患ごとの検討が日本老年医学会の今後の課題となるであろう。</p> <p>また、高齢者が心身ともに個別性が高いことから年齢規定が不適切だと思われるので、“高齢者”に関して暦年齢による規定を行わなかった。</p>

肺疾患の場合は確実に“死”に向かいながらもこの間に急性代償不全のエピソードを繰り返していくが、どのエピソードも高齢者には潜在的に致死性であるので、正確な“死期”の判断は非常に難しい。

### 3. いわゆる老衰死

脳卒中などの疾患を契機に徐々に精神・身体機能が低下・衰弱して全身介助状態に至り、肺炎や心不全を引き起こしながら最終的に“死”に至る例がある。この経過は全体としてみれば特定の疾患や臓器不全によるものというより個体全体の“老化”の結果というべきものである。寝たきり・全面介助状態に至ると、患者の“人権”や“尊厳”が脅かされる可能性が高くなるので、この状態に至った“老衰”は“終末期”に準じて考えるべきだと主張が存在する<sup>3)</sup>。この場合も期間としては6カ月を超えることが少なくない。

このような“老衰”の過程で生じる“摂食不能”を放置すれば“死”に至るが、この“老衰死”は“脱水死”であり、通常苦しみは少なく、死亡までの期間も短く、治療による苦痛もない、ある意味で受け入れやすい死に方といえる。ヨーロッパ諸国ではこのような場合に人工栄養を施さないで安らかに“死なす”ことが社会的合意となっているようである<sup>4)</sup>。しかし、わが国ではこのような場合に補液な

どの医療処置を施さない例はきわめて少ない。それは、ひとつにはこの場合の“摂食不能”が“不可逆的”であると判断することが困難だからである。“老衰”の経過中に生じる“摂食不能”は肺炎などの急性疾患が原因のことが多く、これを治療すれば摂食可能となる場合が少なくないからである<sup>4)</sup>。

もうひとつ大事な点は、ヨーロッパ諸国と異なり日本ではこのような場合の医療措置に対する国民的合意が成立していないことである。一般国民を対象にしたアンケートによれば、たとえ植物状態に陥ったとしても人工栄養などの延命処置を希望するものが少数ながら存在し、しかも高齢者ほどその比率が増加する<sup>5)</sup>。医療における“自己決定権”の行使が、慣習としても制度としても成熟しているとはいえない日本社会においては、“老衰”の過程での“終末期”の判断は非常に難しい。

### 4. 痴呆の“終末期”

痴呆が高度になると身体活動は著しく低下し摂食量も減少する。他者とのコミュニケーションもなくなり、食事も受け付けなくなり、最終的には“老衰”の末期と同様の状態に至る。かりに全面介助状態になった時点からを“終末期”とすれば、この場合も6カ月を超えることは珍しくない。

以上述べたように、“ターミナルケア”、とくに

高齢者のそれを正確に定義するには非常な困難を伴い、具体的に確立されたあり方は皆無といってもよい。このような観点から、高齢者終末期医療のあり方を提言したアメリカ老年医学会は、“終末期”患者の代りに“死にゆく人びと(dying patient)”という用語を用いている<sup>6)</sup>。

### ターミナルケアとは

遠からず“死”が避けられない状態となり患者の身体的苦痛・精神的苦痛の除去が医療の主眼となる時、これを“ターミナルケア”とよぶ。“ターミナルケア”の目的は苦痛・苦悩の緩和により患者のQOLを維持・向上することにある。だからといって“終末期”に発生した治癒可能な急性疾患をすべて放置することではない。治療すればふたたび苦痛のない時間がある程度予測されるならば、当然に治療されねばならない。

“ターミナルケア”においてQOLの視点はとくに重要である。残された時間をどのような状態で過ごすことが有意義であるかは、患者個々の価値観によるところが大きい。患者の選択が保障されるためには適切なインフォームドコンセントがなされる必要がある。そのうえで何の束縛もない自由意思で下されるのが“自己決定”である。

### 高齢者の“ターミナルケア”とは

高齢者の“ターミナルケア”の特徴を考えると、高齢者に特徴的な“終末期”に対する適切な医療のあり方を考えるということである<sup>6)</sup>。高齢者の“終末期”に対しては特徴的な医療がありうるということではない。この点を軽率に誤解すると、高齢者は予想される余命が短いので、非高齢者の“終末期”とは質的に異なる医療が許される、という誤りを冒す危険がある。これはエイジズム(年齢による差別)とよばれ、最近過少医療の問題として取り上げられることがある。適切な医療により救われる可能性がある高齢者が、“高齢”であるという理由で放置されてよいはずがない。

### “ターミナルケア”における死の迎え方の自己決定

さきほどもすこし触れたが、患者が自己決定を

する場合には、決定するために必要な事柄についての知識を事前に求めて、よく理解していることが前提となる。わが国ではこの前提条件が満足させられていなかったり、自己決定をするべき本人自身以外の者が決定してしまうことが少なくない。たとえ患者の病気が悪性腫瘍の末期と診断された場合でも、患者本人が自分が受けたいと思う治療法を選択するためには、医師がその患者に、患者の病状ばかりでなく、いろいろの治療法の内容や、それぞれの治療法の効果や副作用などの危険性を比較できるようにわかりやすく説明をする必要がある。そうでないと患者はどの治療法を選択することができない。そのうえでその治療を医師が自分に実施することについての同意を医師に与えることもできない。この手続きがとられなければ、インフォームドコンセントは実施できない<sup>7)</sup>。ただこの前提を維持することが、実は高齢者の終末期においては困難なことが多い。前に述べたように慢性疾患の“終末期”、“老衰死”、そして痴呆の“終末期”などにおいては、患者本人の自由意志を確認することが事実上不可能なのである。そのため、患者の死の迎え方について事前の自己決定の問題が最近一般にも注目されつつある。

#### 1. リビングウィル

アメリカでは1976年に“カリフォルニア州自然死法”が制定されて「成人が末期状態になったときに、生命維持装置を中止するか取り外すように医師に対して文書をもって指示する書面を作成する権利をカリフォルニア州民に認める」と定めた。リビングウィルとよばれるこの文書を書いておく権利を認める法律を世界ではじめて法制化したのである。その後、アメリカでは1991年PSDAによって連邦法でも同様の権利を認め、全米で同様の権利が認められた<sup>8)</sup>。ただしわが国では法制化されていない。

#### 2. 心肺蘇生拒否の指示

脳死状態の際に心肺蘇生術を拒否する指示を前もって医師にしておくこと、医師は患者の診療記録簿の表面に“DNR order”(do not resuscitate order: 心肺蘇生術拒否指示)と表記し、その指示に従うことで、患者の心肺蘇生拒否の意思が保障される。わが国では法制化されていない。

表 2 尊厳死の宣言書(リビングウィル; Living Will)

年月日	年	月	日
<p>私は、私の傷病が不治であり、かつ死が迫っている場合に備えて、私の家族、縁者ならびに私の医療に携わっている方々につきの要望を宣言いたします。</p> <p>この宣言書は、私の精神が健全な状態にある時に書いたものであります。</p> <p>したがって、私の精神が健全な状態にある時に私自身が破棄するか、または撤回する旨の文書を作成しないかぎり有効であります。</p> <p>(1) 私の傷病が、現在の医学では不治の状態であり、既に死期が迫っていると診断された場合には徒に死期を引き延ばすための延命措置は一切おことわりいたします。</p> <p>(2) 但しこの場合、私の苦痛を和らげる処置は最大限に実施して下さい。そのため、たとえば麻薬などの副作用で死ぬ時期が早まったとしても、一向にかまいません。</p> <p>(3) 私が数カ月以上に涉って、いわゆる植物状態に陥った時は、一切の生命維持措置をとりやめて下さい。</p> <p>以上、私の宣言による要望を忠実に果たして下さいの方々へ深く感謝申し上げますとともに、その方々が私の要望に従って下さった行為一切の責任は私自身にあることを附記いたします。</p> <p style="text-align: center;">年 月 日</p>			

### 3. 終末期医療の中止

終末期に患者の原因疾患の治療をしても病気が治癒するわけでもなく、また病状が軽快するわけでもない。場合によってはその治療がかわって苦痛を与えたり体力を消耗させたりして患者にとってプラスにならない場合がある。そのような治療を患者が自らの希望で中止することで、いたずらに延命治療を受けずに自らの意思で自然死を迎えたいとする社会的な動きがある。これらを“尊厳死”とよんだりするが、わが国では法制化されていない。日本尊厳死協会が独自の“尊厳死宣言書”を発行し(表 2)、その法制化に向けて活動を行っている。その会員数は 10 万人を超えているが、その解釈に関しては主治医と大きな認識の違いがあることが明らかになっている<sup>9)</sup>。つまり患者である宣言書保有者が主治医にその宣言書をみせても、主治医側が患者の意図を認識しない場合が散見されるのである。その原因のひとつに、“終末期の定義が困難であること”があげられているのである<sup>9)</sup>。今後、われわれ実地医家も、“尊厳死宣言書”なる文書を患者に提出され、その扱いに思慮深さが要求されることもあろう。

### 高齢者のターミナルケアの今後の課題

急速に超高齢社会に移行していくであろうわが国であるが、その 1 年間の死亡者数は今後増加の一途をたどることになる。1990 年代は死亡者数が 90 万人台で推移したのが 2000 年代に入り 100 万人を超えるようになってきている。いまから 35 年後の 2039 年には死亡者数がおよそ 170 万人になる。65 歳未満の死亡者数は 20 万人当りであり変動がないとの予測があり、死亡者の増加は高齢者の死亡者の増加と言い換えることができるのである。つまり 21 世紀は“高齢者のターミナルケア”の時代が到来する世紀なのである。

今後増加する高齢者の死亡者の増加は、わが国の病院での死亡者の割合の変化に決定的な変化を与える可能性がある。つまり病院で死亡することのできない高齢者が出現する可能性があり、その可能性に対して何らかの備えをする必要があるであろう。また、高齢者やその家族のなかには自宅や高齢者施設での看取りに関心を持ったり、“患者の自己決定”の浸透により自らの死に場所を自分で選択する高齢者も増加していくであろう。その際に彼らは自分の死に場所として病院を選択せ

ず、自宅や高齢者介護施設を選択することも十分ありうるのである。

そこでわれわれが考えなければならないのが“高齢者介護施設でのターミナルケア”および“在宅でのターミナルケア”である。わが国はそれらの場所での“終末期ケア”の経験にきわめて乏しいのである。

“高齢者介護施設でのターミナルケア”や“在宅でのターミナルケア”のあり方というのは、“高齢者のターミナルケア”を解説することよりさらに困難である。その経験の乏しさは知識の集積の欠如をもたらしている。過去に、それらの場所における“ターミナルケア”の実情を詳らかにした調査研究もほとんどないのである。今後、老年医学を専門にしている医師にとって、これらの問題は重要なものとなるであろう。

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\* \* \*

## ORIGINAL ARTICLE

## Physicians' reports on the impact of living wills at the end of life in Japan

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**Context:** A growing number of Japanese people have completed advance directives, especially living wills, even though there is no legislation recognising such documents and little empirical research on their impact on clinical care at the end of life in Japan.

**Objectives:** To investigate physicians' attitudes about living wills and their experiences with patients who had completed a living will and later died.

**Design:** Self administered survey and qualitative study using open question and content analysis.

**Setting:** Japan.

**Participants:** Physicians known to have cared for a patient who had presented a living will prior to death.

**Measurements:** The physician's response to receiving a living will, communication about the living will, the impact of the living will on clinical care, demographics, and their opinion on advance directives, especially living wills.

**Main results:** Fifty five per cent of respondents approved of advance directives in general, and 34% had more opportunities to communicate with a patient and his/her family after receiving the living will. Sixty nine per cent of the physicians who received a living will did not, however, change their course of therapy as a consequence of receiving the living wills. Based on the analysis, we identified three areas of concern in the comments on living wills: (1) concerns relative to patients, physicians, and families; (2) social context, and (3) clinical and administrative concerns. The physicians raised various topics for discussion; they tended to describe the issues from a clinical perspective.

**Conclusions:** Our identified areas of concern should prove helpful in better understanding the clinical and ethical implications of living wills in Japan.

In recent decades, Japan has witnessed growing interest in the expression and enhancement of individual autonomy in medical decision making at the end of life.<sup>1,2</sup> Written advance directives such as living wills and durable powers of attorney are designed to document patient preferences in event of the loss of patient decision making capacity, and have been advocated as a means to enhance patient autonomy in Japan. In 1992, the Japan Medical Association officially declared that a patient's advanced request for a death with dignity should be respected and that persons forgoing and terminating life support are immune from legal liability.<sup>3</sup> Advance directives have no legal standing in Japan, however, and Japanese courts have not recognised the patient's right to exercise autonomy in the context of terminal illness. Not surprisingly, advance directives have not become widely adopted in Japan.

Opinion polls in Japan reveal the general public's growing interest in discussing end of life issues with doctors and support for allowing terminally ill patients to end life sustaining treatment.<sup>4,5</sup> One organisation, the Japan Society for Dying with Dignity (JSDD), has helped many people to complete a written living will and many of these individuals have used them.<sup>6</sup> Below is an example of one such living will drawn up by the JSDD (box 1).

The number of people who have registered with the organisation has increased exponentially, with membership reaching 93 799 by February 2001.<sup>7</sup>

In the United Kingdom, the British Medical Association cautiously approved the introduction of advance directives in a statement in May 1992.<sup>8</sup> In addition, the High Court has recently ruled that advance directives by mentally competent patients about future treatment are legally binding on doctors. This followed a landmark judgment on a schizophrenic

## Box 1 Dying with dignity declaration

## (Living will)

To my family, my friends, and my medical attendants:  
In preparation for a time when I might face an incurable illness and death is near, I declare that my wishes are as follows:

This declaration is made by me at a time when I am of sound mind. Therefore, this is effective and in full force unless I revoke or withdraw this declaration in writing while I am mentally sound.

1. I request that medical technology should not be used to artificially prolong my life if modern medicine concludes that my disease is irreversible or incurable and that my condition is terminal.
2. I request, however, that effective pain reduction should be fully achieved by any method, such as by the use of narcotics, etc, even though such treatment may shorten my life.
3. I request that all life sustaining procedures be withdrawn if I lie for several months in a condition known as "persistent vegetative state".

I express my heartfelt thanks to all those concerned who will faithfully comply with my requests. I further declare that I hereby absolve these people from any civil liability arising from any actions taken in response to and in fulfilment of the terms of this declaration.

Signature:

Date:

patient in Broadmoor Hospital who refused an amputation of his leg, which prevented doctors from amputating his leg at that time or in the future.<sup>9</sup> There is still, however, no legislation



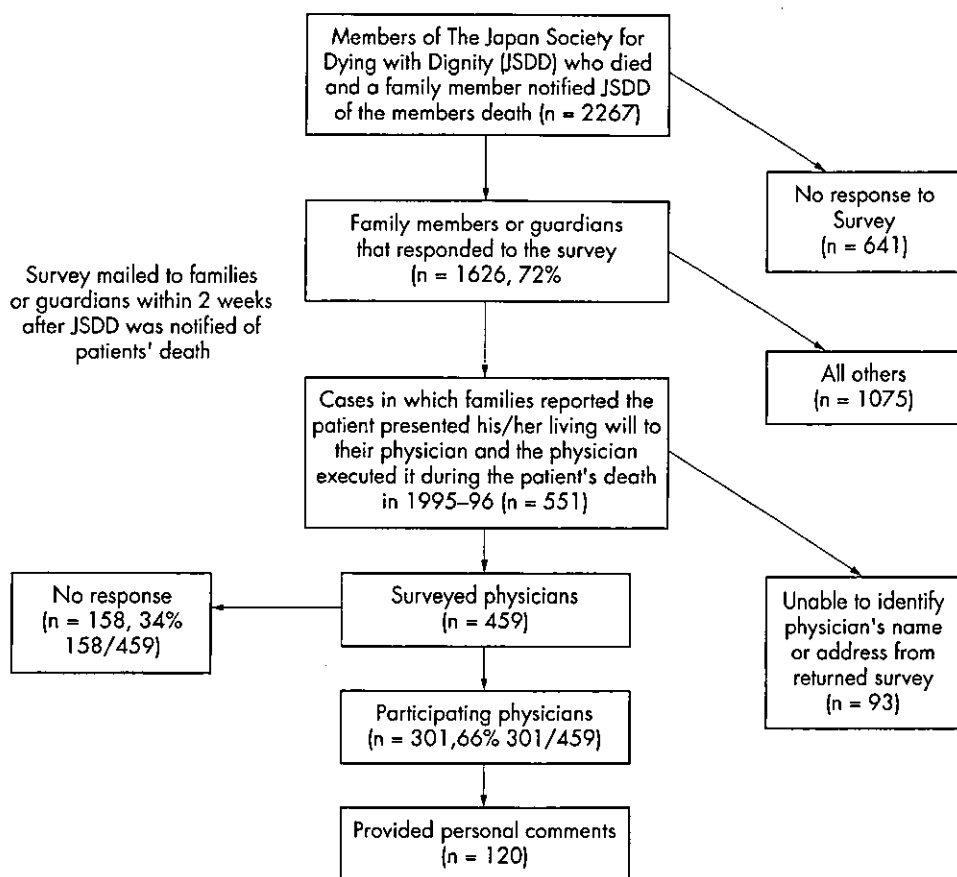


Figure 1 Sampling scheme of respondents.

in the UK which deals with patient autonomy in the case of terminal illness.

The 1991 Patient Self Determination Act in the United States requires all hospitals, nursing homes, and home health agencies to advise patients of their rights to accept or refuse medical care and to execute an advance directive.<sup>10-11</sup> This is usually a written directive for end of life care, a living will and/or a durable power of attorney created to help interpret what a patient's wishes might have been in light of his or her present condition and its possible treatment. Some studies have demonstrated, however, that only 10-15% of US adults have written advance directives, and often their physicians are unaware of them.<sup>12-14</sup> One study suggests that doctors were ignoring their patients' instructions about their end of life treatment preferences.<sup>14</sup> Encouraging results from a recent randomised, controlled trial revealed, however, that simple computer generated reminders can increase the rates of discussion and completion of advance directives among elderly patients with serious illness.<sup>15</sup>

Few Japanese studies have examined the situation of people with advance directives and physicians's attitudes and beliefs toward life sustaining treatment and advance directives.<sup>6, 16, 17</sup> The purpose of this study was to investigate Japanese physicians's experiences with patients who had a living will at the time of death and their attitudes toward living wills, the most commonly used advance directive in Japan.

## METHODS

Based on a survey of 1626 families, which looked at patients who had obtained and showed their living wills to their physicians,<sup>6</sup> we constructed a database of 551 physicians who, according to either a family member or a guardian had seen a living will and followed it when the patient died. The patients who were the topic of this previous investigation had obtained a living will from the JSD. Between 1995 and 1996 a family member or guardian had notified the JSD of the patient's death. Within two weeks of receiving the notification of the

patient's death, the JSD mailed a questionnaire designed to collect data about the patient's death, including the name and address of the deceased patient's physician. For 92 (16.7%) physicians, the address or physician's name was incorrect, and they were hence excluded. The remaining 459 physicians, all reported by family members as having seen and followed the patient's living will, were the target subjects of this research. (figure 1).

For the purposes of this study, we defined "obtaining a living will" as registering with the JSD and receiving a standardised written living will, and "presenting a living will" as showing a completed written living will to the patient's physician. Physicians who limited life sustaining treatment in accordance with the written living will were defined as having "followed the living will".

The major variables of the structured, anonymously administered instrument included the physician's response to being shown a living will, the impact of the living will on communication with the patient and family, the impact of the living will on clinical care, and physician demographics. To analyse these structured items, we tabulated and calculated the frequency distributions according to those who gave written opinions, those who did not, and the totals.

The final item on the instrument asked for physician comments about living wills. We analysed this qualitative data using the process of immersion/crystallisation.<sup>18, 19</sup> Three investigators formed the primary analysis team (Masuda, Fetters, and Mogi) and independently identified domains and subthemes from multiple readings of the descriptions of the respondents. Subsequently, we developed a master list of areas of concern and subthemes that incorporated each investigator's contributions. Differences in interpretation were minimal.

Though the survey was distributed anonymously, a small number of respondents volunteered contact information. This provided a unique opportunity to conduct a re-evaluation of the study's results by some family members or guardians: we contacted 12 who were available by phone to verify our results.<sup>20</sup> They all supported the breadth and depth of the

**Table 1** Physicians' receipt of and response to living wills

	Physicians' comments(+) n=(%, /120)	Physicians' comments(-) n=(%, /181)
Did you receive the patient's living will, and if so, how did you respond?		
1. I received the living will, agreed to it, and executed it.	91 (76)	53 (29)
2. I received the living will, and agreed to it, but I did not execute it.	12 (10)	11 (6)
3. I received the living will, but neither agreed nor disagreed with it.	4 (3)	1 (1)
4. I received the living will, but disagreed with it, and refused to execute it.	0 (0)	0 (0)
5. I never received the living will.	0 (0)	105 (58)
6. Other	13 (11)	11 (6)
Did you have more opportunities to communicate with your patient and his/her families after receiving the living will?		
1. Yes	65 (54)	38 (21)
2. No	24 (20)	23 (13)
3. No, because the patient died suddenly.	11 (9)	5 (3)
4. I never received the living will.	0 (0)	105 (58)
5. Others	20 (17)	10 (6)
Did you change your course of therapy as a result of receiving the living will?		
1. Yes	27 (23)	11 (6)
2. No	78 (65)	57 (31)
3. I never received the living will.	0 (0)	105 (58)
4. Others	15 (13)	8 (4)

(+) These physicians supplied personal comments; (-) these physicians did not supply personal comments.

analysis. This study was approved by the ethics committee of the Department of Geriatrics, Nagoya University School.

## RESULTS

From a single mailing of 459 questionnaires, we received 301 responses, and of these 149 provided written commentaries that were analysed using qualitative techniques. Interestingly, the comments of 29 of these 149 participants illustrated they had a poor understanding of living wills (figure 1). One hundred and twenty two physicians were midcareer physicians. One hundred and sixty physicians majored in internal medicine and 141 majored in surgery and other specialties: these other specialties included five orthopaedists, four otorhinolaryngologists, and three radiologists.

While all the physicians surveyed were reported by a family member or guardian as having seen and agreed to the living will, 105 denied ever having seen the patient's living will. Of the remaining 196 physicians, 144 agreed to it and followed it. Of the physicians who reported they had received the patient's living will, 103 physicians said they had discussed the living will with the patients and/or their families after receiving the living will. Remarkably, 38 physicians who acknowledged being shown the living will reported that the living will influenced clinical outcomes (table 1).

## PHYSICIANS' COMMENTS ON LIVING WILLS

Based on our analysis of these comments from the physicians, we identified three areas of concern; (A) concerns about living wills relative to patients, physicians, and families; (B) social context of living wills, and (C) clinical and administrative concerns about living wills.

### A. Concerns about living wills relative to patients, physicians, and families

#### 1. Living wills and patients

The respondents mentioned both positive and negative influences of living wills on patient care. The most common concern was these physicians' feelings that they needed to take into account patient's state of mind at the end of life. Some physicians pointed out that patients might change their mind in the face of impending death and raised concerns about the stability of such advance decisions. Issues related to patient knowledge and preparation for making this type of decision were also frequent. For example, a chest physician stated: "I think it is quite meaningful for terminally ill patients to exercise autonomy about life sustaining treatments

## Box 2 Dominant concerns and subthemes about living wills in Japan

### A. Concerns about living wills relative to patients, physicians, and families

1. Patients
2. Families
3. Physicians
4. Patient/family/physician interaction

### B. Social context of a living will

1. Trends favouring completion of a living will
2. Relationship of a living will to "dying with dignity" and "euthanasia"
3. Societal understanding of a living will
4. Need to discuss medical ethics
5. Perception about development of a living will in Western culture and implications for Japan

### C. Clinical and administrative concerns about a living will

1. Confusion around the procedures for completing and executing a living will
2. Patient individuality and complexities of implementing a living will
3. Difficulty of explaining when a condition is terminal
4. Complications of second opinions
5. Barriers to effective treatment in curable patients

by presenting a living will. However, autonomy requires a considerable amount of knowledge. Without enough knowledge, a living will could be dangerous."

#### 2. Living wills and families

Some physicians addressed the impact of living wills on their relationships with families. The primary positive perceptions related to increased opportunities to communicate with the family and the underlying essential role the family plays in interpreting the patient's wishes when a patient is no longer able to communicate. For example, a cardiologist described his positive experience, stating: "The living will gave me the chance to have more time to communicate with the patient's family". Potential negative influences were also identified. The most common concern was the feeling that a living will directed too much family energy toward making sure the patient could have a "natural death" without giving enough consideration to understanding the patient's preferences for end of life care. A second concern related to insufficient communication of the

patient's preference to limit end of life care to the family, and the family's subsequent insistence on care incompatible with the patient's directive. For example, some respondents commented on the confusion created when family members request treatments such as cardiopulmonary resuscitation even though the patient has requested a natural death. There were also concerns about the instability of the preference the patient had expressed in the living will and about family members with ulterior motives seeking to change the treatment.

### 3. Living wills and physicians

Many of the physicians who were shown a patient's living will did not routinely provide life sustaining treatment in their clinical practices, but still felt that living wills had played a valuable role. Again, some physicians emphasised the positive effect of a living will, in that it provided an overarching focus on the patient's preference for palliative care and allowed physicians to plan how to accomplish those goals. Other physicians were more cautious and believed that living wills could result in adverse outcome if handled by a physician lacking technical skills in providing compassionate, palliative care. This negative opinion is summarised by a surgeon who wrote: "There is a chance that physicians with marginal skills and little compassion could take advantage of living wills and carry out terminal care negatively. To make the best use of a living will, at this point, we need not the system first, but physicians with skill and character who can handle terminal care."

## B. Social context of a living will

### 1. Inhumane medical care as a factor driving interest in living wills

Several physicians expressed their belief that the inhumane nature of the medical culture was a driving force behind patients obtaining living wills and reflected the need for physicians to do a better job of focusing on care of the patient. Some attributed the problem to the poor quality of education in palliative care that physicians receive in their medical training. A gastroenterologist wrote: "Physicians tend to have shallow ideas on living and dying. I think that it exposes holes in current medical education. With remorse and sincerity, we have to face the mortifying feelings of a patient who dies in an untrustworthy medical system."

### 2. Physician perspectives on death with dignity

This survey on living wills stimulated several physicians to mention their own beliefs about "death with dignity". They articulated concerns about the enduring need to respect human dignity regardless of whether the patient has a living will and disappointment that patients cannot seem to die with dignity unless they have completed a living will. For example, one cardiologist stated: "It is more of a problem that people cannot die with dignity without a living will. I consciously try to respect the dignity of every death."

### 3. Cultural issues associated with living wills and perceptions of death

The term "living will" has been imported directly into the Japanese language and it is pronounced *libingu uiru*. It is written in katakana, the written language that delineates words of foreign aetiology. This writing convention inevitably identifies living wills as distinctly foreign to Japanese culture. For some Japanese, this causes uneasiness, suggesting that it doesn't mix well with Japanese culture, while for others the ubiquitous use of a foreign sounding term for an issue of great importance to all Japanese people is a source of consternation. Those critical of its use, however, have not been able to suggest an alternative phrase, using Japanese terms. Some participants in the survey chided their physician colleagues for their shallow perceptions about the meaning of death. Moreover, they were critical of the superficiality of public discussions about life and death in

Japan. Some alluded to the role indigenous religious/philosophical traditions could play in informing a Japanese sense of a natural death, though these opinions were held by only a minority.

## BACKGROUND

At present, a majority of Japanese feel that modern biomedical and mediatechnological innovations affecting human life and death have effected a changed in our common understanding of the process of death and dying. Historically, death was a natural event, and the criteria for death/cessation of heart beat and respiration was unquestioned. An individual's death should be a personal and private matter as well as a familial, communal, and society matter. It has been so regarded for many thousands of years in Japanese society and culture. It is well understood that our traditional sociocultural understanding of human life admits the natural process of death as a positive event marking of the end of life.<sup>21</sup>

## Clinical and administrative concerns about a living will

### 1. Confusion about the procedures for obtaining and following a living will

All respondents are clinicians, and many of them commented on pragmatic issues for obtaining and completing living wills. No official format or regulations exist that support the implementation of a living will in Japan. Some of the respondents requested information from the JSDD about how to apply for a living will and to obtain application forms from bodies other than the the JSDD.

### 2. Patient uniqueness and complexities of implementing a living will

These physicians work in a variety of clinical settings and commented on living wills based on their clinical experiences. For example, a senior neurologist discussed troubling neurological cases such as occur with dementia, and the difficulty in respecting patient autonomy as the patient's decision making capacity withered away, and family influence increased. Another issue raised was the difficulty of interpreting the individual patient's intended meaning for a death with dignity in the context of clinical uncertainty. Even if the patient's preference was clear, the outcome for any patient could change, based on the response to treatment. One surgeon explained: "With intensive care of stroke patients, some could recover, but with severe functional difficulties. In these cases, if we give up the treatment in the first place, many would die. So should we just leave such patients in a coma since they have a living will? Or can the physician force a long and painful recovery on the patient and his/her family for the physician's own self satisfaction? This really bothers me."

### 3. Difficulty of explaining when a condition is terminal

Many physicians described the difficulty of determining the point when a patient should be considered incurable and the patient's living will implemented. Some patients may have an incurable condition, but still be able to survive for years in a debilitated state requiring only basic medical support. A senior haematologist summarised this concern: "The prerequisite condition for implementing a living will is that the disease is incurable. But it is not always easy to judge whether a patient is really at an incurable stage. Also decision making is hard when a patient's life is expected to be prolonged for another year or so."

### 4. Barriers to effective treatment in curable patients

Some physicians raised concerns about living wills being used to block the provision of routine, curative treatments. One surgeon was strongly influenced by his experience with a patient who had a living will and refused treatment. His experience was so troubling, he gave up general surgery to become a plastic surgeon. He wrote: "Regarding his living will,

I accepted his family's request not to use dialysis and a respirator for the renal and respiratory failure in his terminal condition. However, in his case, I still believe that we could have cured his colon cancer if only he had cooperated with our treatment. He strongly wanted to deteriorate without any treatment and we failed to change his mind. All of the medical staff were caught feeling like they assisted his suicide. We did try our best to get this very pessimistic patient to open his heart, and it still is a very painful memory."

## DISCUSSION

To our knowledge, this represents the first large scale study in Japan to investigate physicians' experiences with, and attitudes towards, patients who died having completed a living will. Because advance directives have no legal standing and living will use is not widespread in Japan, this research provides a unique opportunity to examine the use of a written advance directive to extend patient autonomy to treatment decisions at the end of life. While a family member or guardian reported that these physicians had seen the patient's living will and acted in accordance with the patient's preference as written in the living will, over a third of the physicians denied having seen the living will. This group likely includes physicians who really did not recall seeing the living will, though there may have been physicians reluctant to confirm receipt of the living will.

These physicians highlighted many potential limitations of living wills, including: inadequate communication about how to interpret it; potential liability; the vagueness of living wills; potential for differing patient and family expectations, and other ethical dilemmas. As in previous research, these physicians report that patients have difficulty making advance judgments on complex medical procedures and choices about quality of life since these can change with time and circumstances.<sup>22</sup> Others showed that advance directives might be better suited to patients's end of life care goals than those that focused on specific medical interventions.<sup>23</sup> For some physicians, withholding or withdrawal of life sustaining treatment is perceived as harmful to the patient because this action predictably results in the patient's death. It is widely held that Japanese physicians are trained to save lives, not to end them.

Possible study limitations should be addressed. First, the data represented physician reports, and due to the anonymous nature of the investigation, could not be corroborated with other clinical data to assess their accuracy. Second, while patients who have obtained a living will are a minority and might not be representative of the general population, the physicians who were providing care for these patients are probably reasonably representative of Japanese physicians providing care for adult patients. Most respondents were active clinicians providing medical and surgical care to patients in a variety of clinical settings. Third, only half of the physicians who recalled seeing the living will, provided written comments. While their views might differ from others who did not provide comments or who did not respond to the survey, their experiences are still real and compelling.

Currently, when a patient registers with the JSDD, the patient receives two copies of the living will, one for the patient and one for return to the JSDD. Since many physicians denied seeing the patient's living will, physicians should always be given a copy of the living will to keep with the patient's chart. Of the physicians who recalled seeing the living will, almost a fifth reported that it influenced clinical outcomes. Since living wills have no legal standing, this level of compliance could be interpreted as being surprisingly high and, despite the limitations, as real, since many comments illustrated physicians's poignant concerns that patients were allowed to forgo physician recommended treatments. This suggests that many Japanese physicians are willing to respect autonomous patient preferences to forgo treatments as expressed through a written living will. At the

same time, many physicians expressed consternation with interpreting patient preferences while accommodating family inputs in highly variable settings, all in the face of clinical uncertainty, a point that most assuredly reflects the experiences of physicians who have grappled with following written advance directives in the US and elsewhere. Further research tied to clinical settings in which living wills are implemented could provide a more robust understanding of living will use and adherence as advanced expression of autonomy in the cultural context of Japan.

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## The effect of public long-term care insurance plan on care management and care planning in Japanese geriatric hospitals

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### Abstract

Japan, a society facing demographic aging at an incomparable speed, decided to introduce a new public long-term care insurance system to meet the expected need for elders to be cared for in the near future. The purpose of this study was to examine the change in knowledgeability on the side of managers of Japanese geriatric hospitals regarding (1) the concept of care-management as the methodology to supply care services to the elderly smoothly, and (2) comprehensive assessment for the elders as the technical skill in the process of materializing care management. Subjects were interviewed and questioned over the telephone according to a structural questionnaire. Managers (directors and office managers) of geriatric hospitals in 1996 and 1999. In 1996, the rate of knowledgeability for care management on the side of managers of geriatric hospitals was 70.0% (28/40) as a whole,

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increasing to 97.3% (71/73) in 1999. With regard to MDS-RAPs, the knowledgeability rate increased from 57.5% (23/40) in 1996 to 95.9% (70/73) in 1999. However, regarding care planning, almost all of the hospitals that performed care planning were those in the category required to submit care plans to the municipal government. Geriatric hospitals that were not required to submit such plans did not perform such planning either in 1996 or in 1999. It can be concluded that the decision to introduce a long-term care insurance system in Japan has led to a deeper understanding of the methodology of care management and a comprehensive assessment on the side of managers of geriatric hospitals. © 2001 Elsevier Science Ireland Ltd. All rights reserved.

*Keywords:* Care management; Care planning; Geriatric hospital; MDS-RAPs; Public long-term care insurance

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## 1. Introduction

Every health-care system has many commonalities in the challenges it is facing. This is especially true for long-term care (LTC) for the elderly. In Japan, the proportion of the population aged 65 years and older, which is almost the same today as in the UK, is projected to be much greater in the 21st century. It will double from 12% in 1990 to 25% by the year 2020 (Ishikawa, 1996). This is an issue of serious concern. In the two countries mentioned above, the needs for LTC have been emerging as major health-care needs as demographic aging proceeds.

These fundamental issues have not been solved in Japan. However, the very fact that a public LTC insurance act has passed the Upper House in December 1997 is an indication that the country has managed, at least initially, to overcome the first hurdle of introducing a system to socially share the care-taking tasks for the elderly. Japan has been the third country to establish public LTC insurance after the Netherlands (Kerkstra, 1996) and Germany (Alber, 1996) since April 2000. Japan would be embarking on largely uncharted territory and should therefore provide information for other countries.

In Japan, we have three categories of LTC facilities for the elderly: (1) geriatric hospitals, (2) health-care facilities for the elderly, and (3) special homes for the elderly (Ikegami et al., 1994). Mechanisms to integrate the three categories, such as uniform data systems for service planning and quality assessment, are yet to be developed. The Health and Welfare Ministry of Japan has introduced the assessment for the eligibility status and classify individuals into six levels. These six levels were derived from statistical analysis using, as the independent variable, the period of time obtained from authorized researches (Japan Ministry of Health and Welfare, 1996) necessary to perform each care service. Yet, we have had neither fixed format of, nor assessment instruments for, care planning for individuals cared at home or in the facilities. The needs for a uniform tool for residents assessment in long-term care facilities had long been recognized (Kane and Kane, 1981; Katz, 1983; Katz and Stroud, 1989).

In the US, responding to the very need, the Minimum Data Set (MDS) had been developed, being initially tested by gerontologists and geriatricians under contract

with the Health Care Financing Administration (Morris et al., 1990). The reason for developing this assessment tool is the recognition of the fact that traditional long-term care system had not offered to the elderly care services based upon correct evaluation of his/her physical, mental and social functions. Individual items and combinations of items can trigger further assessments using one or more of the 18 Residents Assessment Protocols (RAPs). Each RAP is a structured framework for organizing MDS elements that can be used to inform the care planning process. We obtained the translation of MDS-RAPs in 1994 in Japan (Japan Ministry of Health and Welfare, 1994).

The purpose of our study is to examine to what extent care planning has been conducted, and the term and idea of “care management” including the knowledgeability of assessments especially MDS-RAPs have been shared by staff working in geriatric hospitals. Furthermore, the effect of introduction of long-term care insurance on these matters is also expected to be clarified.

## 2. Methods

### 2.1. Subjects

The study sample included directors or office managers of geriatric hospitals (GH) that had introduced an inclusive per diem rate system with fixed per diem medical charges in the Aichi prefecture, Japan (Tables 1 and 2). In Aichi, there were 47 such GHs in 1996, and that number had been increased to 96 in 1999. For the purpose of increasing the number of beds in nursing facilities fulfilling the standards of hardware to yield an appropriate care-taking environment by the time of introduction of long-term care insurance in April, 2000, the Health and Welfare Ministry has chosen, as the insurance-certificate facilities, not traditional geriatric hospitals but such nursing facilities fulfilling the expected hardware standards.

For this reason, existing GHs in Japan are remodeling themselves to be such long-term care hospitals (LTCHs) at present. In addition, the transitional period in which geriatric hospitals can also obtain reimbursement has been set up to March, 2003. Regarding the hardware, these nursing hospitals (LTCHs) are required to

Table 1

Japanese geriatric hospitals and long-term care hospitals for the elderly: requirements for geriatric hospitals and long-term care hospitals for the elderly

	Minimum floor space per bed (m <sup>2</sup> )	Minimum width of passage (m)	Dining room, common room, and rehabilitation room
(a) Geriatric hospitals GHs	4.3	1.2	Not required
(b) Long-term care hospitals for the elderly (LTCHs)	6.4	1.8	Required

Table 2

Japanese geriatric hospitals and long-term care hospitals for the elderly: four types of the geriatric hospitals and the long-term care hospitals for the elderly

Characteristic	Type I	Type II	Type III	Type IV
<i>Required staff</i>				
Number of physicians (/100 patients)	3	3	3	3
Number of nurses (registered nurses/practical nurses > 0.2)	1/6 patients	1/6 patients	1/6 patients	1/6 patients
Number of nursing aids	1/3 patients	1/4 patients	1/5 patients	1/6 patients
<i>Payment</i>				
Insurance coverage (yen/day)	8890	8140	7610	7260
Charges on patients (yen/month)	21 000+“caring charges”	21 000+“caring charges”	21 000+“caring charges”	21 000+“caring charges”
<i>Care plans</i>				
Submission to the municipality	Required	Not required	Not required	Not required

have higher standards in comparison with traditional GHs. The above-mentioned 96 GHs with some per diem rate systems existing in Aichi in March 1999 actually consisted of 41 GHs and 55 LTCHs for the elderly. On a number-of-beds basis, there were a total 5388 beds in GHs in 1996, and the number increased to 9089, consisting of 5469 beds in GHs and 3620 beds in LTCHs in 1999.

We had mailed prospectuses of our study to each director or office manager of the above-mentioned hospitals on June 1, 1996 and March 1, 1999 and asked for a hearing (basically in an interview, and in case it was not available, we had a hearing using the telephone). The hearings had been undertaken from September to December in 1996 and from April to June in 1999. We asked questions in accordance with our questionnaire (Table 4).

Approval for this study was obtained from the Ethics Committee of Nagoya University School of Medicine, and informed consent was obtained from each subject.



## 2.2. Statistical analysis

The knowledgeabilities on care management of each subject were compared in terms of the number of beds, the type of inclusive per diem rates of the hospital, and whether or not staff had made use of MDS-RAPs at the hospital. In addition, we compared whether or not care planning had been conducted with the differences in number of beds, type of inclusive per diem rates, and whether or not the director or office manager of the hospital had knowledgeability on care management. Univariate comparisons were made using Cochran–Mantel–Haenszel statistics with Statistical Analysis System (SAS) version 6.11 (SAS/STAT User's Guide, 1990).

## 3. Results

### 3.1. Descriptive statistics

We interviewed 40 directors or office managers of 47 GHs (40/47, 85.1%, 5,086 beds) in 1996 and 37 directors or managers of 41 GHs (37/41, 90.2%, 5086 beds) and 36 directors or office managers of 55 LTCHs (36/55, 65.5%, 2663 beds) in 1999. Characteristic data are shown in Table 3. With regard to the capacity of hospitals, approximately half of GHs (52.5%) had 99 beds or less (min. = 46 beds) in 1996. However, in 1999, while the percentage was similar with GHs 46.0% (min. = 46), the percentage became higher with LTCHs (75.0%, min. = 22).

Tables 1 and 2 show the four types of per diem rate system of Japanese geriatric hospitals. In both 1996 and 1999, almost half of GHs adopted type I and the percentages were similar with national data (type I = 42.4%, type II = 33.1%, type III = 9.9%, type IV = 3.8%, July 1997). With LTCHs, The number of type I was the same as that of type II.

Table 3  
Characteristic data of the geriatric hospitals

	1996	1999 GH	1999 LTCH
<i>(1) Number of beds of their hospitals (percentage of total)</i>			
1–99	21 (52.5%)	17 (46.0%)	27 (75.0%)
100–199	12 (30.0%)	13 (35.1%)	8 (22.2%)
200–299	6 (13.5%)	5 (13.5%)	1 (2.8%)
300–	2 (5.4%)	2 (5.4%)	0 (0%)
<i>(2) Type of inclusive per diem rates (percentage of total)</i>			
Type I	19 (47.5%)	18 (48.7%)	13 (36.1%)
Type II	15 (37.5%)	11 (29.7%)	13 (36.1%)
Type m	4 (10.0%)	3 (8.1%)	2 (5.6%)
Type W	2 (5.0%)	5 (13.5%)	8 (22.2%)

Table 4  
Results of descriptive data

	1996	1999 GH	1999 LTCH
<i>(1) Directors or office managers with knowledgeabilities on care management</i>			
To know	28/40 (70.0%)	35/37 (94.6%)	36/36 (100%)
Not to know	12/40 (30.0%)	2/36 (5.4%)	0/36 (0%)
<i>(2) Care planning for residents</i>			
Performed for all residents	20/40 (50.0%)	18/37 (48.7%)	18/36 (50.0%)
Performed partly	12/40 (30.0%)	7/37 (18.9%)	6/36 (16.7%)
<i>(3) Staff participating in care planning</i>			
Physician	21/32 (65.7%)	10/25 (40.0%)	10/24 (41.7%)
Public health nurse	3/32 (9.4%)	3/25 (12.0%)	5/24 (20.8%)
Nurse	26/32 (81.3%)	25/25 (100%)	21/24 (87.5%)
Certified social worker	8/32 (25.0%)	5/25 (20.0%)	9/24 (37.5%)
Certified care worker	8/32 (25.0%)	7/25 (28.0%)	7/24 (29.2%)
Nursing aid	14/32 (43.8%)	20/25 (80.0%)	13/24 (54.2%)
Others (PT, OT, etc.)	11/32 (34.4%)	4/25 (16.0%)	6/24 (25.0%)
<i>(4) Performance of some comprehensive assessments</i>			
Performed	25/40 (62.5%)	16/37 (43.2%)	21/36 (58.3%)
<i>(5) Staff performing residents assessments</i>			
Physician	11/25 (44.0%)	13/16 (81.3%)	16/21(76.2%)
Public health nurse	1/25 (4.0%)	0/16 (0%)	3/21 (14.3%)
Nurse	24/25 (96.0%)	16/16 (100%)	20/21(95.2%)
Certified social worker	3/25 (12.0%)	6/16 (37.5%)	9/21(42.9%)
Certified care worker	3/25 (12.0%)	7/16 (43.8%)	5/21(23.8%)
Nursing aid	13/25 (52.0%)	11/16 (68.8%)	14/21 (66.7%)
Others (PT, OT, etc.)	8/25 (32.0%)	5/16 (31.3%)	11/21(52.4%)
<i>(6) Directors or office managers with knowledgeabilities on MDS-RAPs</i>			
To know	23/40 (57.5%)	35/37 (94.6%)	35/36 (97.2%)
Not to know	17/40 (42.5%)	2/37 (5.4%)	1/36 (2.8%)
<i>(7) Use of MDS-RAPs</i>			
To make use	13/40 (32.5%)	12/37 (32.4%)	16/36 (44.4%)
Not to make use	27/40 (67.5%)	25/37 (67.6%)	20/36 (55.6%)

Table 4 lists the results of descriptive data. Seventy per cent of the directors or office managers knew the term and idea of care management in 1996, while almost all of them had knowledgeability on care management in 1999. In both 1996 and 1999, some care planning for residents had been undertaken in approximately half the hospitals. In 1996, it varied among nurses, nursing aids, and physicians who had participated in the task of care planning, whereas in 1999, at all hospitals where care-planning was conducted, every nurse was concerned with it.

Regarding comprehensive assessments for residents, they had been undertaken in about half of the hospitals both in 1996 and 1999. With regard to the kind of staff who took part in conducting them, we found that nurses were concerned at almost all such hospitals both in 1996 and in 1999. In 1996, nursing aids were concerned

at two-thirds of such hospitals, and physicians at 44% (11/25) of them, while in 1999, the percentage of physicians concerned increased to approximately 80% (29/37). Certified social workers were concerned only in three hospitals in 1996. However, in 1999, the number had increased.

Though the number of directors or office managers who knew MDS-RAPs had increased in 1999 (Fig. 1), the number of staff utilizing MDS-RAPs was similar.

### 3.2. Univariate analysis

We grouped subjects into those who had knowledgeability on care management and those who did not, and then compared the two groups with characteristic variables. We found no significant differences in the capacity of their hospitals. The association between their knowledgeability on care management and the types of per diem rate system adopted is shown in Fig. 2. The directors or office managers of hospitals adopting type I were more likely to understand care management than those of hospitals adopting other types in 1996 ( $P < 0.001$ ). In 1999, they were more likely to have knowledgeability on every type.

Then, we grouped subjects into those of hospitals where care planning was conducted and where it was not, and compared the two groups with demographic variables. In terms of the capacity of hospitals, we found no significant differences. The association between their attitudes and the types of per diem rate system is shown in Fig. 3. In hospitals adopting type I, the staff were more likely to conduct care planning for their residents than in hospitals adopting other types in both 1996 and 1999 ( $P < 0.001$ ). Both had a similar tendency.

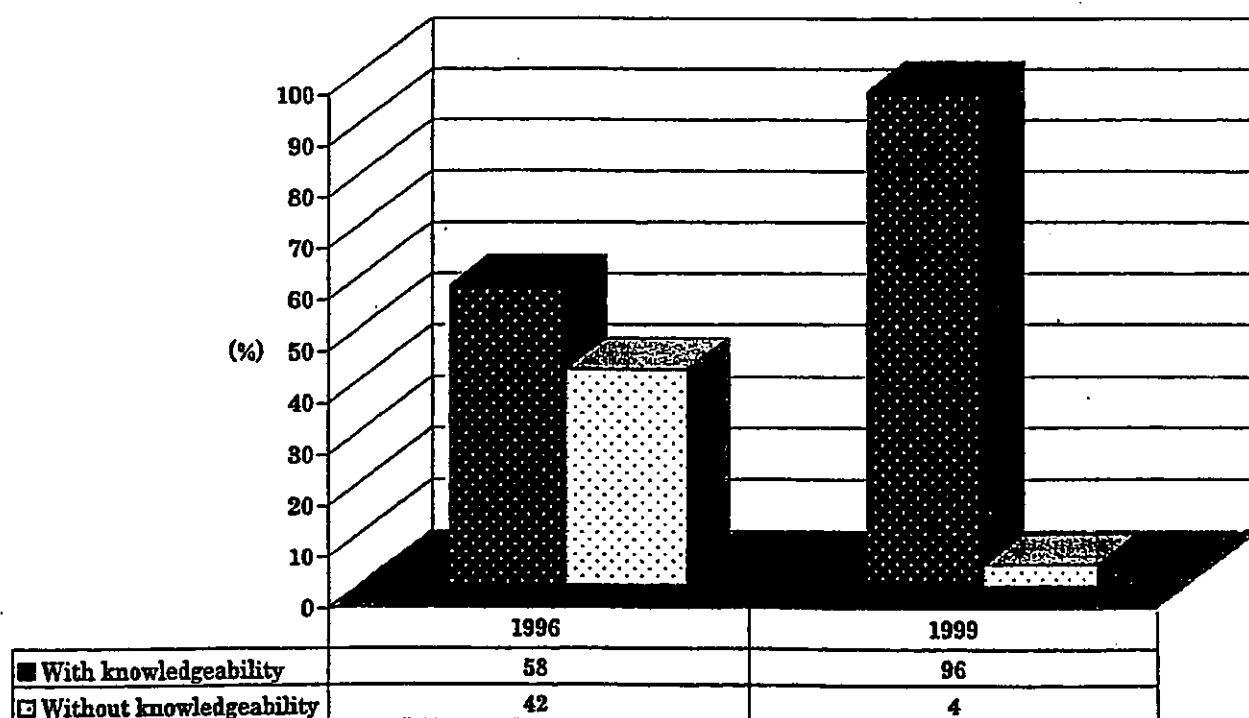


Fig. 1. Rates of knowledgeability on MDS-RAPs.

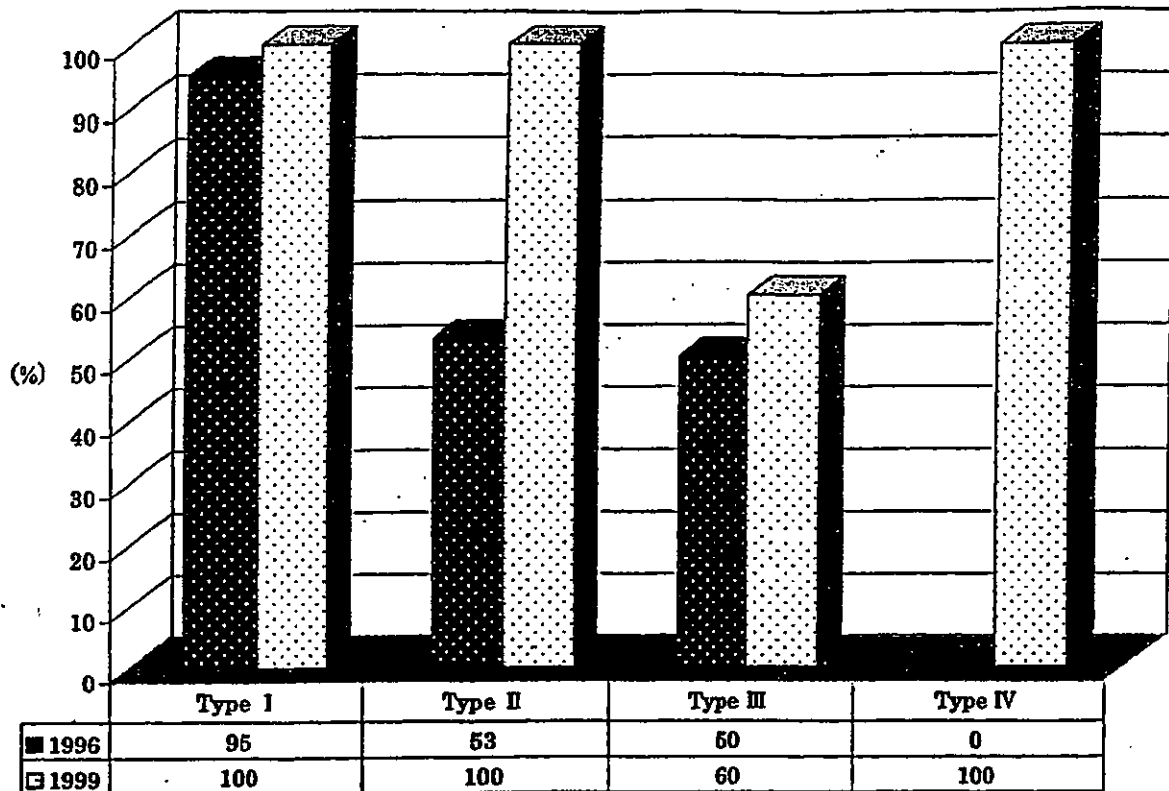


Fig. 2. Rates of knowledgeability on care management.

#### 4. Discussion

The purpose of our study is to examine to what extent care planning has been conducted, and the term and idea of “care management” including the knowledgeability of comprehensive assessments especially MDS-RAPs have been shared by staff working in geriatric hospitals. Furthermore, the effect of introduction of long-term care insurance program on these matters is also expected to be clarified.

Regarding the effect of case management and care management and the usefulness of MDS-RAPs, opinions vary, and negative comments are often seen (Franklin et al., 1987; Ouslander, 1994; Rossler et al., 1992; Teresi and Holmes, 1992; Marshall et al., 1995; Burns, 1996; Phelan, 1996). However, Japanese long-term care insurance program makes it compulsory for facilities to introduce care management and conduct care planning for each resident. With respect to comprehensive assessment instruments, there are several available in Japan, and among those, MDS-RAPs, along with MDS-HC (Morris et al., 1997), are the most prevalent assessment tools at present and are quite likely to be the most usable assessment tools when the insurance program is actually launched.

Our findings in this study, though they are not always applicable to all over Japan, are that the concept of care management has become widely known as the insurance program was informed. It seems that MDS-RAPs has also been known along the way. We found that the performance rate of care planning did not change significantly unless the facility was mandated to tender care planning for residents to municipality. However, from April 2000 on, all caretakers are mandated to