# Japan Credit Rating Agency, Ltd.



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## Rating Methodology by Sector

## **Medical Institutions**

This rating methodology is intended to be applied mainly to private hospital operators, which can be medical corporations, general incorporated foundations, and a wide range of other types of corporations. It is also expected to be applied to social welfare corporations that operate nursing care and welfare facilities with similar industrial characteristics to hospitals.

#### 1. Business base

#### (1) Market overview

There are approximately 8,000 hospitals and over 100,000 general clinics in Japan. Twenty percent of hospitals are operated by the national government, local governments, and public organizations such as the Japanese Red Cross Society and Saiseikai, while the remaining 80% are run by private operators, mainly medical corporations. The total number of hospital beds in Japan amounts to 1.5 million, of which general hospital beds and convalescent beds, which treat a wide range of illnesses, account for just under 80%.

General hospital beds are divided into advanced acute phase, acute phase, recovery phase, and chronic phase, depending on the patients' condition. The government has been promoting the standardization and efficiency of the medical care providing system by clarifying the division of roles for each of these functions and providing economic incentives through medical fee revisions. In addition, as the required functions of hospital beds change with the aging of the population, the government is encouraging the reorganization of hospital beds by region. In rural areas with declining populations, the consolidation of hospitals, especially public hospitals, is also being encouraged in order to consolidate scattered medical resources and increase responsiveness.

Medical institutions are subject to regulations such as the Medical Care Act, as well as to licensing and approval by the government and local governments, making it difficult for them to develop their businesses in a flexible manner. On the other hand, demand for medical care is highly stable, and it is easy to forecast future demand. The number of sickbeds in a region is regulated by the total number of sickbeds per function, and the number of sickbeds cannot be increased beyond the standard number, thus limiting the risk of overly strong competition. The risk of bad debts is also limited because the majority of revenue is derived from medical fee and nursing care fee under the public insurance system.



## (2) Non-profit nature

Although domestic medical institutions are non-profit organizations that do not aim to maximize profits, the approach to creditworthiness assessment, which focuses on the evaluation of their business and financial bases, is no different from that of general business corporations. However, in rating medical institutions, more weight is placed on the evaluation of their business bases compared to general business corporations.

Medical institutions are community-based, not-for-profit businesses, and it is essential that they continue to earn the support of the community by appropriately providing healthcare services that meet society's needs for the increase of sustainability of the organization. JCR believes that many of the factors that lead to support from the local community, such as contributions to community healthcare and the health of residents, can be expressed in the "positioning in the medical care zone," such as various accreditations and designations received by the medical institution, calculation of medical fee items, cooperation with other medical institutions, and market share in the region. The more clearly and strongly a medical institution is positioned in the medical care zone, the easier it will be to attract excellent human resources, the more stable it will be to secure patients, and the more likely it will be to receive policy support in the form of subsidies and preferential treatment under the medical fee system. In the evaluation of business bases, JCR focuses on analyzing the positioning in the medical care zone and reflects the strength in the rating.

### (3) Status of medical care zone and positioning in the zone

Regional medical care is a system that is generally completed within the secondary medical care zones, which are subdivided into more than 300 zones nationwide in accordance with the Medical Care Act. For this reason, JCR pays attention to the regional characteristics of the secondary medical care zone in which medical institutions operate. The regional characteristics are confirmed in terms of population composition by age, estimated future population, population ratio of doctors, nurses, and other qualified personnel having national licenses, and the difference between the standard number of sickbeds and the number of existing sickbeds, in order to understand the current business environment and the outlook for changes in the environment over the medium to long term. While the overall domestic demand for medical care is expected to continue on an expansionary trend against the backdrop of an aging population and technological advances, it should be noted that there are significant regional differences in the estimated future population. In regions where the pace of population decline is relatively fast, there is a high possibility that the demand for medical care will deviate downward from the outlook for the country as a whole, and the shortage of workers is likely to become apparent and serious at an early stage.

In analyzing the sustainability of an organization, while taking into account trends in social security policies and regional characteristics of secondary medical care zones, the "positioning in the medical care zone," on which JCR focuses is confirmed mainly from the following points: (i) Status of various accreditations and designations (whether or not the hospital is accredited or designated as a social medical



corporation, emergency medical center, community medical support hospital, regional cooperative core hospital of cancer treatment, regional perinatal maternal and child medical center, etc.), (ii) Calculation status of medical fee items (DPC (Diagnosis Procedure Combination) hospital group or standard hospital group, details of DPC function evaluation coefficient and fee-for-service-based evaluation, etc.), (iii) Status of collaboration with other medical institutions (trends in referral/reverse referral rates, referrer/referred medical institutions, etc.), and (iv) Regional market share (number of DPC patients, number of emergency transports received, etc.).

## (4) Profit structure

Medical institutions are labor-intensive, with labor costs accounting for roughly half of their expenses. On the other hand, a large initial investment relative to the size of the business is required when a hospital is newly built, making them capital-intensive in some respects. The fixed cost burden tends to be high and the cost structure is rigid. On the other hand, the majority of medical care revenues are derived from the medical fee system and the nursing care fee system, which are official prices, and are capped in real terms. The emphasis is on whether expenses are appropriately controlled while they strive to secure maximum revenue.

The medical fee for hospitalization is designed to provide higher unit price revenues by increasing the density of care and shortening the length of hospital stay through the use of more human resources. However, as shorter lengths of stay tend to reduce the utilization of hospital beds, it is also essential to increase the number of new patients. Maintaining a high bed utilization rate while raising the average inpatient care unit price will ensure that medical care revenue is sufficient to cover the increased personnel costs associated with the extensive staffing. While the required staffing, measures to secure new inpatients, and ward management methods differ depending on the function of beds, emphasis is placed on whether the medical institution can secure a medical care revenue commensurate with its staffing for any of the beds. JCR judges the progress of efforts to secure medical care revenue by focusing on the bed utilization rate, average inpatient care unit price per day, number of new inpatients, and ratio of total personnel expenses to medical care revenue. In terms of securing new inpatients, the status and measures to attract new inpatients are reviewed by route and medical department, including collaboration with clinics/hospitals, outpatient, medical checkup/medical examination for early detection of a specific disease, and emergency services. In terms of expenses, JCR confirms the amounts of material costs, personnel costs (salaries), outsourcing costs, and other expenses, as well as the ratio of these expenses to medical care revenue, and any significant changes, if any, JCR figures out their causes. In addition, for the purposes of ensuring profit and proper hospital management, JCR also checks whether a system for continuous improvement through the PDCA cycle is in place at each organizational unit, and whether a system for sharing management know-how throughout the group is in place.



#### (5) Human Resource Base

The adequacy of human resource base is important because it is directly related to cash flow. If the number of doctors and other staff is sufficient and stable, it will be easier to increase the density of medical care, which will lead to an increase in the average medical care unit price. The number of patients that can be treated will also increase. On the other hand, the medical community has long been in a situation where it is difficult to secure human resources, and it is not uncommon for medical treatment system to be forced to downsize due to staff shortages. In addition, if staff retention rates are low, recruitment costs will increase.

The human resource base can be broadly categorized into (i) doctors, (ii) nurses, care workers, and other qualified personnel having national licenses, and (iii) other staff such as clerical workers, and the status of each should be checked. Since a medical institution cannot exist without doctors, JCR places the most importance on the status of doctors. The analysis focuses on changes in the number of personnel, checking the degree of leeway in relation to the statutory number and the number of required placements based on the standard for medical institutions, as well as making comparisons with other medical institutions of similar size and function in the secondary medical care zone. The recruitment system for staff, education/training system, turnover rate trends, and measures to promote retention are also be checked. With regard to doctors, JCR pays attention to the degree of sufficiency by medical department, relationship with university medical offices, and trends in clinical training matching performance. In particular, medical institutions that provide doctors with abundant cases and play an essential role in regional medical care, i.e., those that are strongly positioned in the medical care zone, will have an advantage in securing doctors, as they are easy to cooperate with university medical offices. As for staff in the nursing care field, it is expected to become even more difficult to secure staff in the future. The focus is on whether the medical institution can establish and maintain a relative advantage in its human resource base within the operating region by taking all available measures to secure human resources, including the use of elderly people and non-Japanese nationals and promoting their retention.

## (6) Policy-related risks and responsiveness to system reforms

The government is pushing forward with its policies by providing economic guidance through the revision of medical fee once every two years and the revision of nursing care fee once every three years. However, the government has been controlling the revision rate of each fee revision to a low level in order to curb the growth of social security expenditures amid the severe fiscal conditions, and it is highly likely that the same trend will continue in the future. If medical institutions fail to respond appropriately to the fee revisions, there is a risk that they will not be able to secure sufficient medical care revenues, and then their business operations will deteriorate. In addition to responding appropriately after the fee revision, JCR pays attention to whether they can determine the direction of system reforms, including future fee revisions, and develop their systems.

These efforts can be described as "responsiveness to system reforms," and JCR checks throughout the examination whether the medical institution is developing its business based on accurate assumptions about



future changes in the business environment, and whether it has governance, management organization, and business base that can flexibly respond to changes in the environment. JCR believes that a strong ability to respond to system reforms will stabilize future medical care revenue and cash flows, and increase the sustainability of the organization. In terms of governance, JCR pays attention to whether the organization is capable of balanced decision-making as a non-profit organization, and focuses on the leadership of the president, the strength of the check-and-balance functions of the governing board and others, and the degree of completeness of the headquarters function.

## (7) Views on groups

With the history of difficulties for medical institutions to expand their business across prefectures due to licensing and approval by local governments, there are many groups that have established multiple corporations and expanded their business across a wide area. In addition, some medical institutions utilize so-called "Medical Service (MS) Corporation." If JCR judges that such a group is strongly integrated, the creditworthiness of the group as a whole will be evaluated and reflected in the rating. If the rated entity is not a core corporation of the group, JCR will evaluate the creditworthiness of the entity on the basis of its independent creditworthiness based on the business and financial foundations that have been formed through its relationship with the group.

The strength of the group's unity is judged in terms of the parties' recognition, history of group formation, status of equity and capital contributions, origin and concurrent positions of executives and employees, management control system, necessity and strategic importance of each corporation's functions, existence of factors that would reduce the ties among corporations, etc. In understanding the financial condition of the group as a whole, JCR adjusts the accounts in the case of different accounting systems and eliminate inter-group transactions, and then adds up the financial statements of each corporation. The analysis of social welfare corporations is conducted with attention to the facts that, under the system, the outflow of funds is strictly limited and their financing is completely independent, and that subsidies for the construction of facilities are recorded in their net assets, and therefore when their financial statements are combined with the financial statements of other corporations, it is likely to deviate upward from the actual situation.

#### 2. Financial base

#### (1) Cash flow generation capacity

As mentioned earlier, to ensure stable profit, it is necessary to secure medical care revenue commensurate with human resource allocation, and therefore JCR focuses on trends in medical care revenue and the ratio of total personnel expenses to medical care revenue. JCR also focuses on the situations of each medical care zone in which the medical institution operates and situations of each facility. In addition, since the cost of hospital construction tends to be substantial, JCR confirms whether sufficient cash flow is being generated to repay the procured funds. Although periodic income is likely to



deteriorate in the period before and after the construction of a hospital due to a decline in bed occupancy and recording of various expenses, if JCR can confirm a high probability of medium-term improvement in profit, it may be judged that the situation is not problematic from a credit rating standpoint.

Key financial indicators:

- Medical care revenue
- Ratio of total personnel expenses to medical care revenue
- Medical care profit
- Medical care profit before depreciation and amortization
- Ratio of medical care profit before depreciation and amortization to medical care revenue

## (2) Safety

Medical institutions are characterized by a high degree of certainty of cash-in-flow due to stable medical demand. On the other hand, the financial structure of medical institutions is subject to large fluctuations due to the need to raise large amounts of funds relative to the size of the business when constructing a hospital. In addition, the payback period is long. In making the financial analysis, JCR confirms the actual and planned capital investments and figures out where the medical institution is in the investment cycle, such as the preparation and implementation phase, start-up phase after implementation, or investment recovery phase for the large-scale investments, and conducts the analysis in comparison with the current financial conditions. Since financing for medical institutions is almost exclusively conducted through indirect financing, JCR also places emphasis on the stability of transactions with financial institutions.

For plans for large-scale investments, JCR examines the certainty of investment recovery, taking into account the necessity of such investments and the prospect of changes in the positioning of the medical institution within the medical care zone. Even if the financial structure deteriorates, if the medical institution has a certain degree of financial leeway and can expect a stable investment recovery, it may be judged not to be a problem from a rating perspective.

It has become difficult for medical institutions to expect to receive large amounts of subsidies when renewing facilities and equipment, and the aging of facilities requires the accumulation of funds in a planned manner through self-help. It is important to visualize the strategic funds and facility maintenance funds that will be needed over the long term and to secure each of these funds systematically, after formulating a future vision and renewal investment plan. JCR confirms the status of formulation of the future vision and fund management policy with consideration of financials.



#### Key financial indicators:

- Ratio of interest-bearing debt to medical care profit before depreciation and amortization
- Net assets
- Ratio of net assets to total assets
- Debt equity ratio

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