

CLAIMS

[Claim 1]

A medical institution selection server configured to select a medical institution to which a patient is transported, the medical institution selection server comprising:

a processor; and

a memory, wherein

the memory is configured to hold

a flow prediction model that predicts a flow which includes one or more processes to be executed on the patient from state information of the patient, and

medical institution information that indicates a state of a resource for executing each process included in an executable flow for each medical institution, and

flow information that indicates a start condition and an execution time of each process included in a flow indicated by the flow prediction model, and

the state of the resource indicated by the medical institution information is configured to indicate a possible use start time of the resource, and

the processor is configured to

acquire the state information of the patient,

predict a flow to be executed on the patient based on the acquired state information of the patient and the flow

prediction model,

acquire a state of a resource for executing each process included in the predicted flow in each medical institution with reference to the medical institution information,

refer to the flow information to acquire the start condition and execution time of each process included in the predicted flow,

refer to the medical institution information to acquire the possible use start time of the resource for executing each process included in the predicted flow,

calculate a start time of each process included in the predicted flow based on the acquired start condition, the acquired execution time, and the acquired possible use start time, and

select medical institution candidates to which the patient is transported based on the acquired states of the resources and the calculated start time, and

output information of the selected medical institution candidates.

[Claim 2]

The medical institution selection server according to claim1, wherein

the processor is configured to calculate, for each

process included in the predicted flow, a later time between a time when the process satisfies a start condition and the possible use start time of the resource for executing the process as a start time of the process.

[Claim 3]

The medical institution selection server according to claim 1, wherein

the one or more processes include treatment actions, and the medical institution candidates are selected based on a possible treatment start time that is an earliest time among the calculated start times of the processes which are the treatment actions in the corresponding predicted flow.

[Claim 4]

The medical institution selection server according to claim 3, wherein

the processor is configured to output a possible treatment start time of the corresponding medical institution candidate by including the possible treatment start time of the corresponding medical institution candidate in information of the selected medical institution candidates.

[Claim 5]

The medical institution selection server according to

claim 1, wherein

the memory is configured to hold

a travel time prediction model that predicts a travel time taken by emergency transportation equipment from a predicted travel time based on a route,

position information of the emergency transportation equipment, and

position information of the medical institution, and

the processor is configured to

acquire an estimated travel time based on a route through which the emergency transportation equipment arrives at the medical institution, the route being indicated by the position information of the emergency transportation equipment and the position information of the medical institution,

calculate a transportation end time when the emergency transportation equipment arrives at the medical institution based on the acquired predicted travel time and the travel time prediction model, and

calculate a start time of each process included in the predicted flow based on the transportation end time.

[Claim 6]

The medical institution selection server according to

claim 5, wherein

the memory is configured to hold admission inquiry required time history information that indicates history of a time required for an admission inquiry at each medical institution, and

the processor is configured to calculate the transportation end time based on a predetermined statistic of the time required for the admission inquiry at each medical institution.

[Claim 7]

The medical institution selection server according to claim 1, wherein

the processor is configured to
acquire information that indicates a transportation destination medical institution to which the patient is transported, the transportation destination medical institution being determined from the medical institution candidates, and

update a state of a resource of the transportation destination medical institution in the medical institution information based on a start time of each process included in a flow scheduled to be executed in the transportation destination medical institution.

[Claim 8]

The medical institution selection server according to claim 1, wherein

the flow prediction model includes

a patient classification prediction model configured to predict a patient classification of the patient from a state information of the patient, and

acceptability information configured to indicate, for each medical institution, acceptability of the patient classification and a flow executed for a patient who can be accepted in a patient classification, and

the processor is configured to

predict a patient classification of the patient based on the acquired state information of the patient and the patient classification prediction model, and

specify a medical institution that accepts the patient in the predicted patient classification with reference to the acceptability information and predict a flow executed on the patient in the medical institution.

[Claim 9]

The medical institution selection server according to claim 8, wherein

the memory is configured to hold flow information that indicates a start condition and an execution time of each

process included in a flow indicated by the flow prediction model,

the state of the resource indicated by the medical institution information is configured to indicate a possible use start time of the resource,

the one or more processes include treatment actions,

the patient classification prediction model is configured to predict a probability that the patient is relevant to each patient classification from the state information of the patient, and

the processor is configured to

predict the probability that the patient is relevant to each patient classification based on the acquired state information of the patient and the patient classification prediction model,

calculate a probability that each flow is executed on the patient in each medical institution based on the predicted probability and the acceptability information,

refer to the medical institution information to acquire a possible use start time of the resource for executing each process included in each flow,

refer to the flow information to acquire the start condition and execution time of each process included in each flow,

refer to the medical institution information to

acquire a possible use start time of the resource for executing each process included in each flow,

calculate a start time of each process included in each flow based on the acquired start condition, the acquired execution time, and the acquired possible use start time,

calculate, for each flow, a possible treatment start time that is an earliest time among the calculated start times of the processes which are the treatment actions,

calculate an expected value of the possible treatment start time in each medical institution based on the calculated possible treatment start time and the probability that each flow is executed, and

select the medical institution candidates based on the calculated expected values.

[Claim 10]

The medical institution selection server according to claim 1, wherein

the processor is configured to output states of resources of the medical institution candidates by including the states of the resources in information of the selected medical institution candidates.

[Claim 11]

A method for selecting, by a medical institution

selection server, a medical institution to which a patient is transported, the method comprising:

by the medical institution selection server, holding a flow prediction model configured to predict a flow which includes one or more processes to be executed on the patient from state information of the patient;

by the medical institution selection server, holding medical institution information configured to indicate a state of a resource for executing each process included in an executable flow for each medical institution;

by the medical institution selection server, holding flow information that indicates a start condition and an execution time of each process included in a flow indicated by the flow prediction model,

by the medical institution selection server, holding the state of the resource indicated by the medical institution information is configured to indicate a possible use start time of the resource,

by the medical institution selection server, acquiring the state information of the patient;

by the medical institution selection server, predicting a flow to be executed on the patient based on the acquired state information of the patient and the flow prediction model;

by the medical institution selection server, acquiring a state of a resource for executing each process included in

the predicted flow in each medical institution with reference to the medical institution information;

by the medical institution selection server, referring to the flow information to acquire the start condition and execution time of each process included in the predicted flow,

by the medical institution selection server, referring to the medical institution information to acquire the possible use start time of the resource for executing each process included in the predicted flow,

by the medical institution selection server, calculating a start time of each process included in the predicted flow based on the acquired start condition, the acquired execution time, and the acquired possible use start time,

by the medical institution selection server, selecting medical institution candidates to which the patient is transported based on the acquired states of the resources and the calculated start time; and

by the medical institution selection server, outputting information of the selected medical institution candidates.