Supplemental Figure Legend

Figure. 1A Establishment of independent database of ICU patients
Figure. 1B Number of cases collected by independent database of ICU patients in the hospital
Figure. 2A Data source of critical illness database
Figure. 2B Data entry method of critical illness database
Figure. 3 The practical use of the critical illness database
Figure. 4A The necessity of building independent critical illness database
Figure. 4B The usage of building critical illness database
Figure. 4C The shortcoming of critical illness database
A. How long has the independent ICU database established in your department or hospital? How many patients were included?

<table>
<thead>
<tr>
<th>Duration</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 6 months</td>
<td>15%</td>
</tr>
<tr>
<td>6 months – 1 year</td>
<td>24%</td>
</tr>
<tr>
<td>1 year – 3 years</td>
<td>18%</td>
</tr>
<tr>
<td>More than 3 years</td>
<td>9%</td>
</tr>
<tr>
<td>More than 5000</td>
<td>3%</td>
</tr>
<tr>
<td>1001 - 5000 cases</td>
<td>15%</td>
</tr>
<tr>
<td>500 - 1000 cases</td>
<td>12%</td>
</tr>
<tr>
<td>Less than 500 cases</td>
<td>6%</td>
</tr>
<tr>
<td>3%</td>
<td></td>
</tr>
</tbody>
</table>

B. Currently, how many patients' data is expected to be collected in the critical illness database established by your hospital or department each year?

- Less than 500 cases: 24%
- 500 - 1000 cases: 45%
- 1001 - 1500 cases: 21%
- More than 1500 cases: 9%
A. Does the critical care database established by your hospital or department have access to data from the following data sources?

- HIS: 88%
- Nursing system: 88%
- LIS: 70%
- EMR: 67%
- First Page: 52%
- PACS: 36%
- Surgical anesthesia: 33%
- ECG: 30%
- RIS: 27%
- Pathology: 24%
- Ultrasound: 21%

B. By which way does the critical care in your hospital or department collecting data?

- Collecting data manually: 64%
- Intelligent data collection module: 61%
- Data synchronization module: 55%
- Regular data backup: 36%
- Data sedimentation by intelligent application: 18%
- Unknown: 6%
- Others: 3%
With the assistance of critical illness database, what type of work can you do?

Scientific research: 81%
Department Administration: 66%
Assisting clinical decision-making: 57%
Prediction of disease hazard: 50%
Therapeutic effect evaluation: 47%
Disease management: 41%
MDT: 26%
Others: 9%

Fig. 3 The practical use of the critical illness database
A. Please rate the necessity of establishing an independent ICU database from the perspective of discipline development and department construction (1 means completely unnecessary, 7 means very necessary)

B. What do you want to accomplish with the critical illness database?

- Research declaration: 88%
- Scientific research: 84%
- Assisting clinical decision-making: 84%
- Disease management: 76%
- MDT: 68%
- Communicate with colleagues: 64%
- Evaluation of medicine and instrument: 44%
- Cooperative project with government: 44%

C. In what scenarios do you think the existing critical illness database cannot meet your department management needs?

- Management of medical quality: 64%
- Analysis of operation data: 61%
- Management of medicine: 58%
- Management of hospital infection: 52%
- Management of department administration: 48%
- Medical service management: 45%
- Others: 6%

Fig. 4A The necessity of building independent critical illness database
Fig. 4B The usage of building critical illness database
Fig. 4C The shortcomings of critical illness database