Multimedia Appendix 2. Top-down approach and bottom-up approach to implementing structured data entry (SDE).

We used two approaches to develop the structured clinical template: 1) top-down, and 2) bottom-up. The table below shows the detailed comparison between the top-down and bottom-up approach.

	Top-down approach	Bottom-up approach
Concept	General to specific Centralized control	Specific to general Distributed management
Method	Clinical data collection → Expert cooperation (physician, programmer, modeler, etc) → Content development → Structured clinical template development	User opinion collection (physician, researcher, health care professional, etc.) → Structured clinical template development → Content development → Content and template mapping
Strength	Accurate modeling	Short development period
Weakness	Time-consuming Required laborious work	Granularity
Implement	Body measurements, vital signs, blood tests, etc.	Note formats (pathology reports, progress notes)