

## Supplements

ID	Requirements	Priority
<b>Data Collection</b>		
1.1	Collect data from FHIR server	Must
1.2	Handle failed requests	Should
<b>Extraction and Processing</b>		
2.1	Extract parameters from FHIR	Must
2.2	Compute subscores	Must
2.3	Compute SOFA Score	Must
2.4	Handle quality exceptions (divergent frequency, data gaps, etc.)	Should
2.5	Compute at least once a day	Should
2.6	Compute more than once a day	Could
2.7	Compute at predefined times automatically	Could
2.8	Compute qSOFA score	Could
2.9	Compute SOFA trend	Won't
<b>Pipeline Output</b>		
3.1	SOFA score output as FHIR observation	Must
3.2	Unified output in FHIR (Bundle)	Could
3.3	FHIR output of Used Procedure Resource	Could
3.4	FHIR output of Used Software (Device) Resource	Could
3.5	Output uses FHIR profiles	Could
3.6	Output in SDC format	Won't
<b>Architecture</b>		
4.1	Set up as a microservice	Must
4.2	Integrable with a service-oriented architecture	Must
4.3	Easy installation and configuration	Should
4.4	Configurability per patient	Should
4.5	Authorized access only	Could
4.6	Containerized (Dockerized) deployment	Could
<b>Display Output</b>		
5.1	Conspicuous display of the score	Should
5.2	Show subscores	Should
5.3	Show visualization	Should
5.4	Intuitive hyperlinking of displayed information	Should
5.5	Overview of previous scores and subscores	Should
5.6	Prevent cluttered information	Should
5.7	Clear, user-focused frontend	Should
5.8	Alarm functionality indicating outliers and changes	Should
5.9	Clear labeling of displayed element	Should
5.10	Use of appropriate codification	Should
5.11	Drill down to parameter, values, additional trends	Should
5.12	Recommend guidelines depending on current score	Could
5.13	Hyperlink to guidelines	Could
5.14	Keep alarms infrequent (avoid alarm fatigue)	Could
5.15	Alarm overview	Could
5.16	Minimized trend buttons	Could
5.17	Highlight outliers	Could
5.18	Display comparison with additional information	Could
5.19	Individualisation of alarm thresholds	Could

Table A1: Requirements prioritized by the MoSCoW technique to guide functional model design and build iterations (illustration from Gatrio<sup>8</sup>).