Author's response to reviews

Title: A markup language for electrocardiogram data acquisition and analysis (ecgML)

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PDF covering letter
Responses to Reviewer 1

1. “Are there any standardization efforts (HL7)?”

Currently, committees within standardization organizations in healthcare such as CEN/TC251, HL7, ASTM, etc. are working on recommendations for the use of XML in healthcare. The use of XML syntax for the exchange of electronic patient records was shown in all its aspects in the EU projects Synapses and SynEx. However, these efforts do not focus on ECG data.

2. “The tables are much too comprehensive (a lot of overhead / metadata description). It would be valuable to describe (in text) some of model components (elements, structure, attributes) in more detail.”

The section of Methods of the revised version includes additional information to address this concern.

Responses to Reviewer 2

1. “compulsory:
in Table 1, Line 7
must be table 3 and not table

in Table 8
must be Normal instead Normal”

The revised version includes these corrections.

A point by point description of the change made

1. Page 1, Paragraph 3, Line 3

Original text: “exchange of ECG data”
Revised: “exchange of electrocardiogram data”

2. Page 1, Paragraph 3, Line 3

Original text: “The distinction between the FDA proposal and”
Revised: “The distinction between the proposal developed by the U.S Food and Drug Administration and”

3. Page 2, Paragraph 4, Line 1

Revised: “CORBAmed, the Healthcare Domain Task Force of the Object Management Group (OMG) [6]”

4. Page 2, Paragraph 5, Line 3

Original text: “information at different levels [6]”
Revised: “information at different levels”

5. Page 3, Paragraph 2, Line 7

Original text: “…represent medical information [17, 18].”
Revised: “…represent medical information [17].”

6. Page 4, Paragraph 2, Line 6-7

Original text: “…and one or more Record components.”
Revised: “… and one or more Record components. It is worth noting that each record can have only one PatientDemographic element, which would be kept updated all the time; while multiple Record elements are allowed to be held in one patient record. This opens up every opportunity to keep track of the history of the patient’s diagnoses.”

7. Page 4, Paragraph 4, Line 7

Original text: “or-more RecordDate.”
Revised: “or-more RecordDate. Such flexible structure allows each recording to have its own characteristics.”

8. Page 5, Paragraph 2, Line 1

Original text: “which are encoded into the element BinaryData,”
Revised: “which are encoded into the elements BinaryData and RealValue,”

9. Page 5, Paragraph 2, Line 4
Original text: “values.”
Revised: “values. The element Data in RealValue contains a list of float data separated by delimiters, representing the real value of each sample ECG data.”

10. Page 5, Paragraph 3, Line 10

Original text: “two Peak values”
Revised: “two Peak values”

11. Section References: All the references have been re-written using the BMC reference format.

12. Page 12, Table 1, Row 8, column 4

Original text: “See Table “
Revised: “See Table 3”

13. Page 17, Table 7

The following row was inserted at the end of Table 7.

<table>
<thead>
<tr>
<th>Data</th>
<th>Encoded binary ECG data</th>
<th>Required</th>
<th>string</th>
<th>A923B420</th>
</tr>
</thead>
</table>

14. Page 18, Table 8, Row 12, Column 5

Original text: “Noraml”
Revised: “Normal”