

Artificial Intelligence Based Obstetric System (AIBOS) for the Delivery Room

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Medical professional liability and clinical safety are highly topical issues. In Spain, Obstetrics and Gynecology is the specialty with the highest risk in terms of severity and amount of professional liability claims and the second specialty in terms of incidence of claims. The international scientific literature points to a major current medical-legal problem with regard to obstetric risk in relation to medical care at the time of childbirth.

Thus, international experience points to the subjectivity of current tests and the lack of adequate and useful monitoring of all the factors involved in such assistance as the main threat to medical assistance in childbirth, with the appearance of supervening complications with no clear direct correspondence with the data currently monitored.

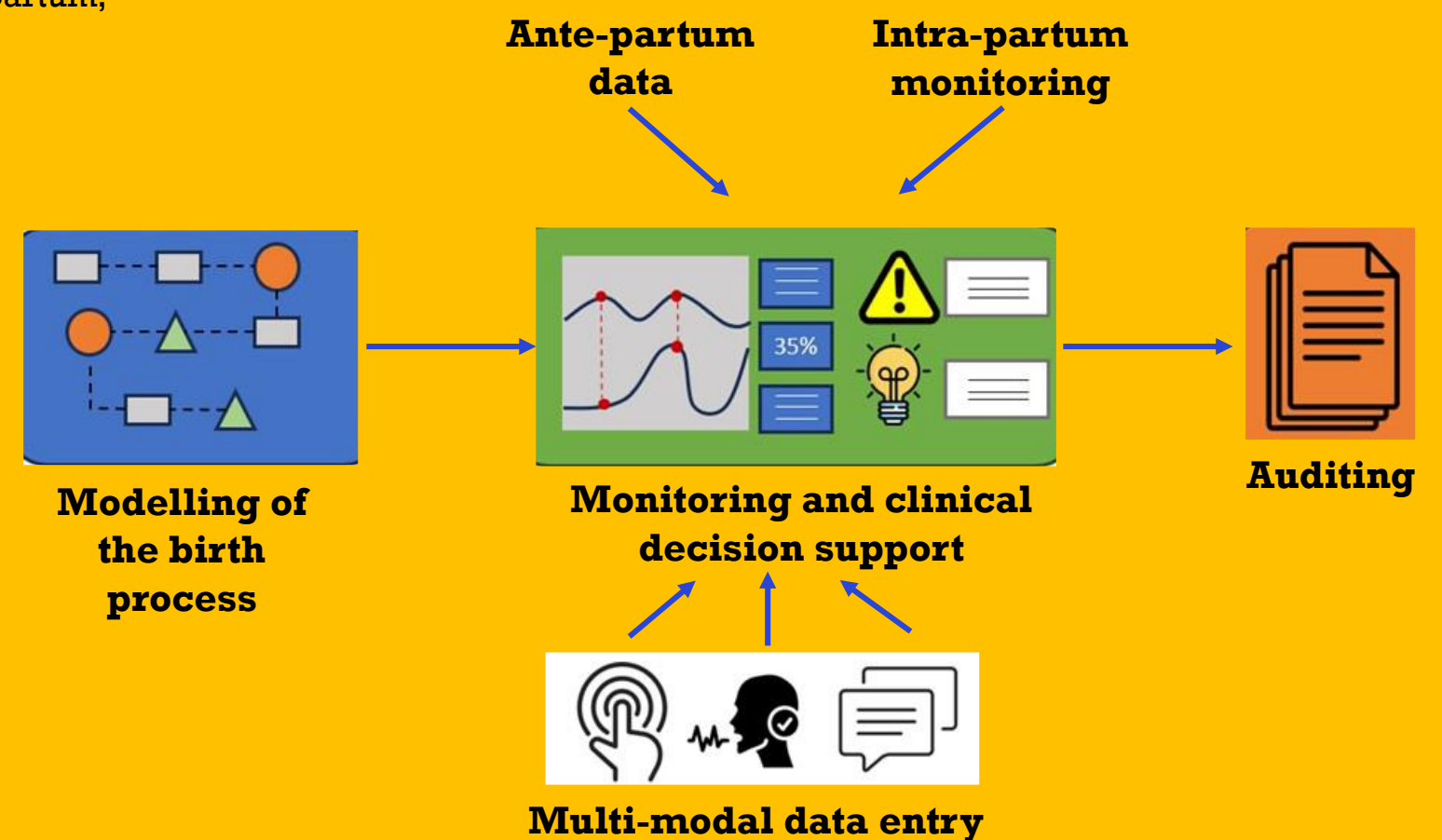
Faced with this clinical safety problem, the AIBOS project aims to:

- 1 Analyse the clinical safety aspects of obstetric care and, in particular, of medical care during childbirth,
- 2 Facilitate the monitoring of protocols and clinical guidelines for obstetric care,
- 3 Improve the care provided, focusing on the prevention of obstetric complications, many of which are serious, through artificial intelligence-assisted monitoring that will allow the creation of algorithms that will help in clinical decision-making,
- 4 Improve the traceability of the care process during pregnancy, childbirth and postpartum,
- 5 Improve the patient experience in the obstetric field.

The AIBOS project aims to design and develop an advanced artificial intelligence tool to support decision making in Obstetrics and Gynecology.

The AIBOS project includes a technological phase, a clinical care phase, which will be carried out by the *Gynaecology and Obstetrics Service of the Hospital Sant Joan de Déu*, while *Meditecnologia*, the technological and business development company owned by the Official's College of Physicians of Barcelona, will be responsible for the coordination and promotion of the project, as well as the medico-legal audit. In addition, the *Chair of Legal Medicine, Professional Liability and Clinical Safety of the University of Barcelona*, linked to the Directorate of Quality and Clinical Safety of the Hospital Clínic de Barcelona, will advise all the above entities on clinical safety.

It is expected that the new tool will lead to a reduction in the number and impact of complaints, which in turn will lead to a significant improvement in clinical safety in maternal-fetal care.



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