

Standardising data collection of obstetrics and gynaecological ultrasound for AI-readiness & reproducibility

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Objectives

To provide a standardised protocol for ultrasound data collection for AI research in obstetrics and gynaecology across healthcare contexts (Fig.1)

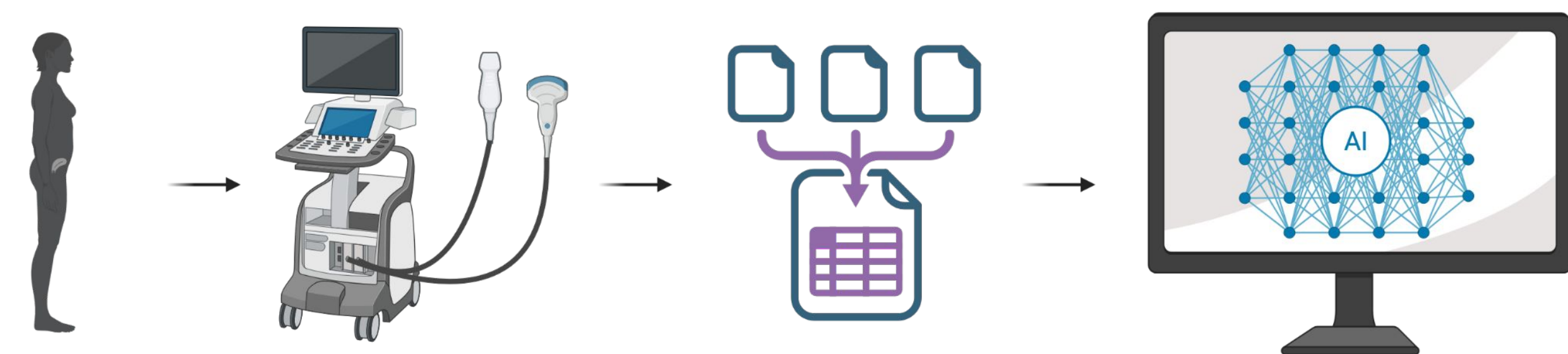
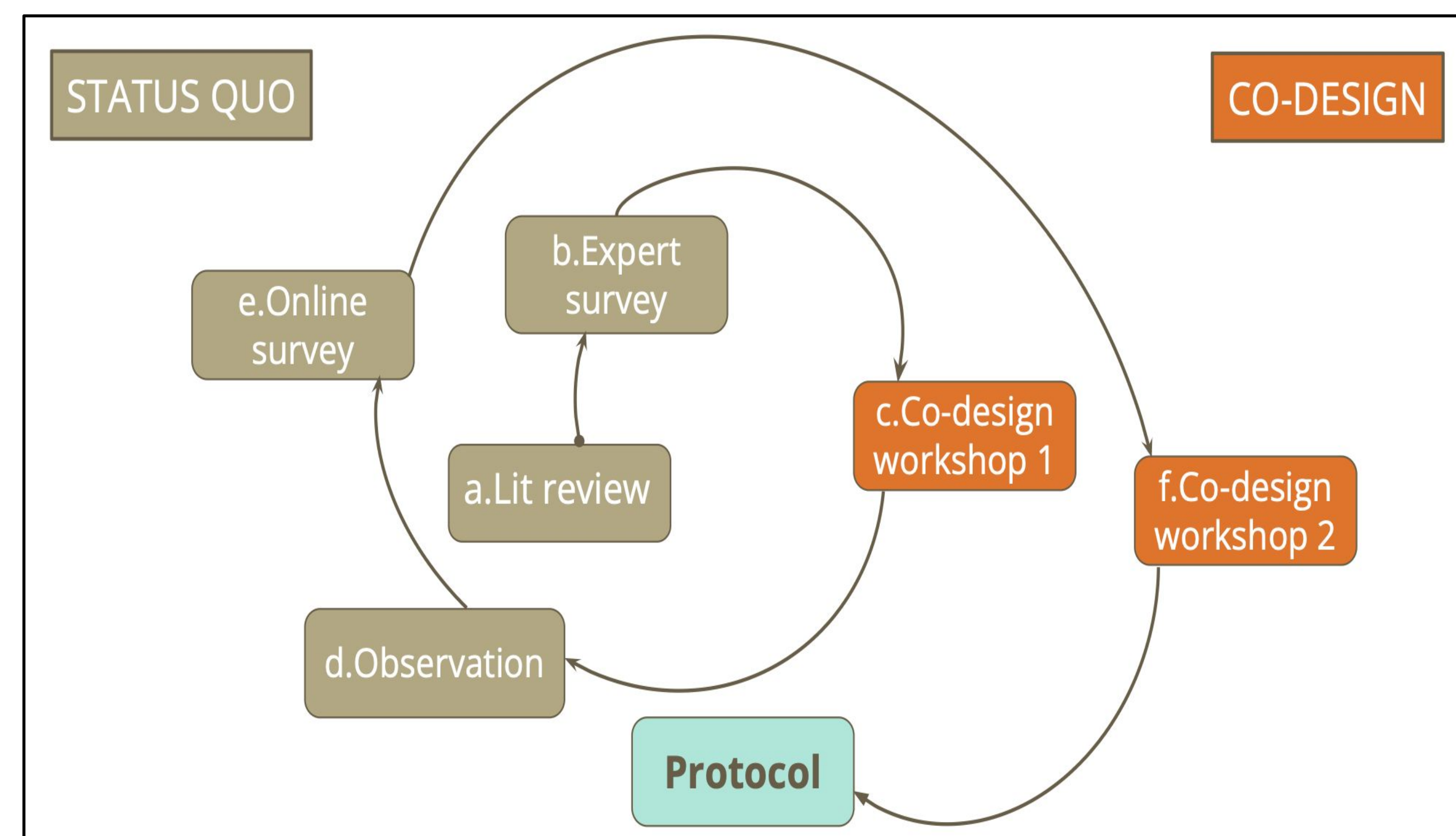


Figure 1. objectives

Methods Figure 2. co-design, iterative method with 26 international ultrasound and AI experts.



Results

- We identified five key stages in relation to ultrasound data collection: data acquisition, uploading and storage, de-identification, extraction, and processing.
- We provide guidelines for each stage, e.g. metadata specifications, AI-readiness recommendations (Fig. 3).

Conclusion

- Data collection is challenging, with common bottlenecks in obstetrics and gynaecology.
- Standardisation is required for multi-centred AI studies.
- It can improve reproducibility, comparison between studies.
- It can facilitate clinical AI innovation and training in ultrasound.

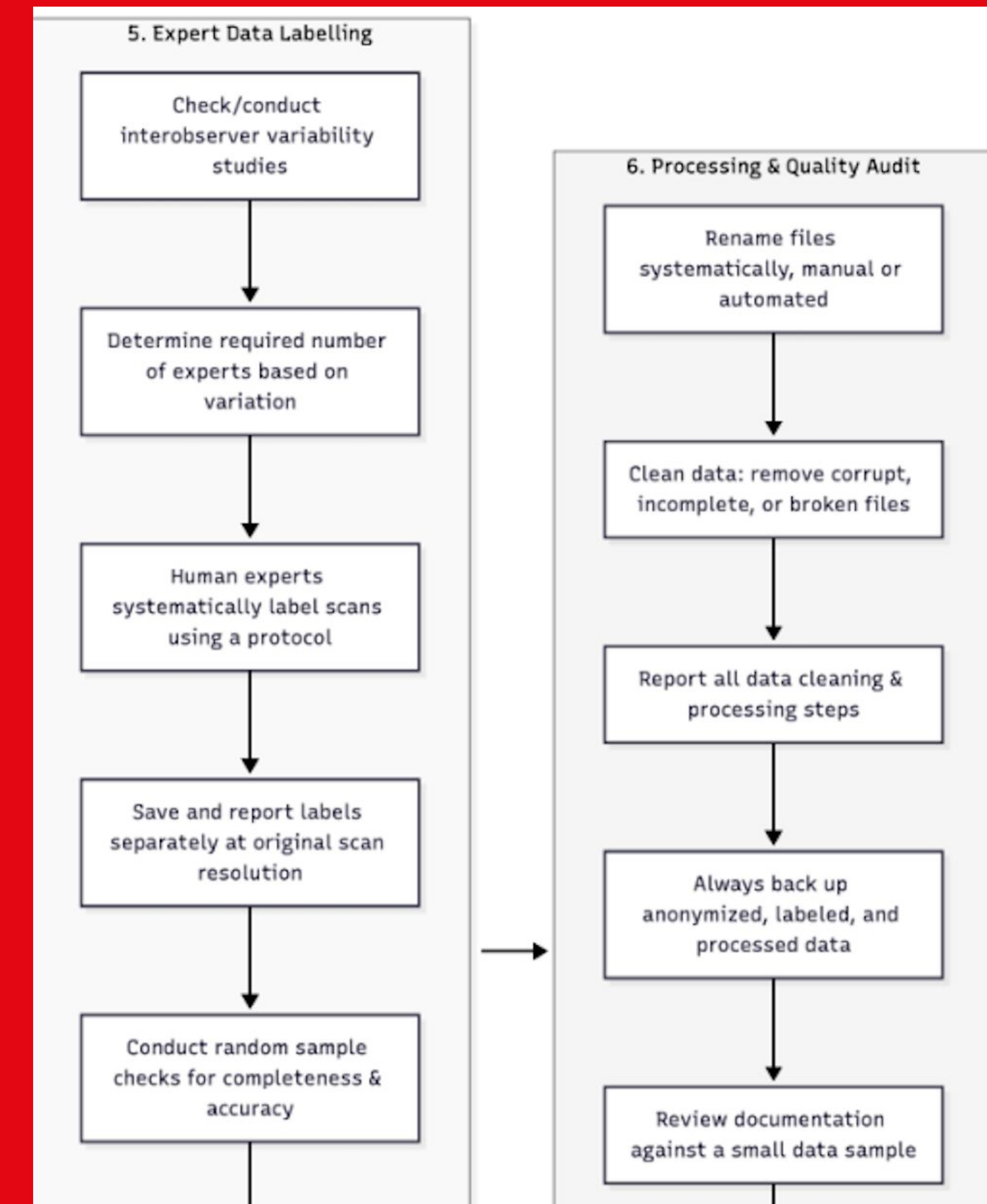


Figure 3. Extract from our standardised protocol for ultrasound data collection.



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