

Considerations for the development of an App to measure burn patient outcomes: *An international IT perspective*

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Background:

The Matching Assessment using Photographs of Scars (MAPS) scar assessment tool, published in 2005, was recommended as one of the preferred scar assessment tools by a recent systematic review, as it enables accurate relocation and reassessment of the scar. With electronic records & increasing use of smart devices in health, the MAPS manual was translated into an App format: ClinMAPS™Pro. At the time of development no other scar assessment Apps were available, making this the first of its kind

Materials and Method:

Considerations for the successful development of the ClinMAPS™Pro scar assessment App included:

- Determination of the optimal digital platform for the App based on accessibility, ongoing maintenance requirements and their associated costs
- Engagement of a digital designer experienced with health care app development
- ICT requirements: local, national, & international
- Health statistician involvement for pre-determining intra- and inter-rater reliability testing power calculations and subsequent analysis
- Ability to integrate additional existing scar assessment tools, with authors permissions, over time to create a portable, digital scar assessment "library" for clinicians

References:

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 Baryza M, & Baryza G. The Vancouver Scar Scale: An administration tool & its interrater reliability. JBCR 1995; 16:535-8
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Internal & External Considerations for the MAPS App development process

Results:

ClinMAPS™Pro currently has 5 inbuilt assessments:

- MAPS,
- mVSS,
- Patient Reported Outcomes,
- Japan Scar Workshop (JSW) Scar Scale
- POSAS: Patient and Observer Scar Assessment Scale v2.0/EN

User friendly with report output that can be assimilated into paper or electronic health records. Currently available in iOS platform with Android version in development stage.

Conclusions:

- Local ICT security, GDPR and HIPPA requirements should be considered when implementing App based assessment tools into clinical practice to ensure App quality and compliance
- There are rapidly changing requirements in the online and information technology space
- Knowledge of the various international regulations governing the collection, use and storage of patient information is required
- A considered approach is needed prior to development of Apps for use in burn injury care, and in health care in general

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