

Background

Clinical audits are one of the products delivered by NPS as part of its Evaluation and Quality Assurance program. Auditor is an application developed by the Pharmaceutical Decision Support Program at NPS to allow the additional provision of these clinical audits electronically.

Application features

Usability features

- Pre-population of fields (where appropriate)
- Provision of a personal record of clinical audit activity
- Feedback and analysis can be immediate
- Flexible analysis capabilities
- Can be more time efficient and simpler compared to paper (if well designed)
- Recording of action points
- Contextual provision of guidance
- No possibility of third-party access to data
- User friendly interface

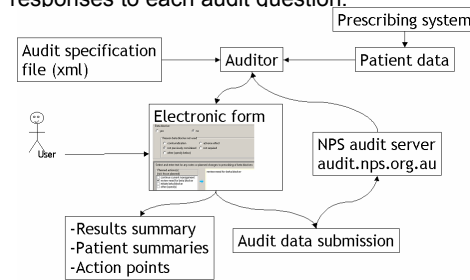
Organisational features

- All data collected will be valid
- Data cleaning is unnecessary
- Turnaround of analysis is potentially faster
- Has the potential to tap new clinical audit participant populations
- Potential for reuse of the application in other areas/organisations.

Electronic clinical audit process

The structure and wording of each clinical audit is developed in an audit specification file, which is formatted with XML. Auditor reads this file and presents each page of the audit to the user as an electronic form.

An audit participant fills in the form for each patient they are including their audit, with Auditor recording the user's responses to each audit question.

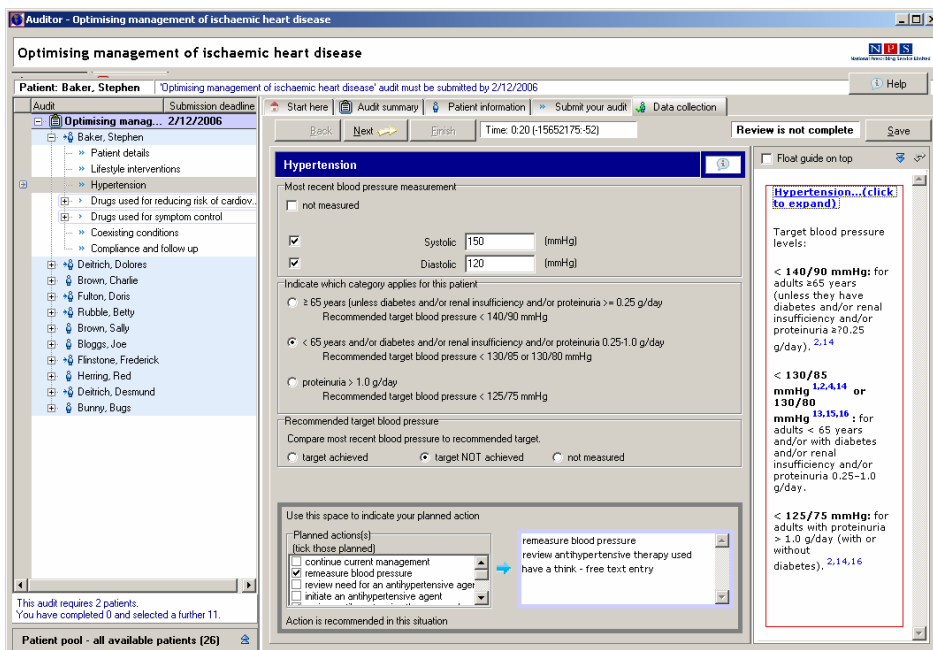


Intuitive form completion

The specification of an clinical audit allows the development of clinical audits that are easily filled out. The features that are currently employed to facilitate this include:

- Automatic disabling of irrelevant questions
- Highlighting of next steps
- Indication of where responses are mandatory.

Auditor delivering electronic clinical audits



Submission of results

On completion of all patients, the audit data is submitted to NPS. The data is compressed, encrypted using PKI and then sent via the Internet to the NPS audit server.

On receipt, the submission is acknowledged electronically. At NPS, the data is downloaded from the server, decrypted and decompressed prior to being analysed. The analysis carried out follows that developed for paper audits.

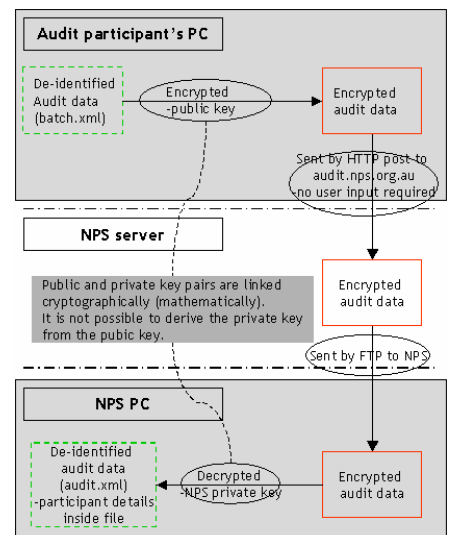
Immediate feedback

Because there are no delays in transmission and subsequent analysis, some of the results of the clinical audit can be presented to the user immediately.

The feedback delivered to the participant developed to date includes presentation of the key clinical indicators and group summary analysis of the data collected.

Privacy and security

Public Key Encryption (PKI) is being used to ensure security of data. PKI allows participants to encrypt the data in such a way that no third party can read it, even if the data is intercepted whilst being transmitted to NPS.



Conclusion

As of May 2006, Auditor has been developed as a beta product. It has undergone pre-tests, the results of which have been positive and will lead to the further refinement of the interface.