

# Standards in Pre-analytics

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# Introduction

- The association of Biomedical Scientists in Finland started Good recommendations for pre-analytics project in 2009
- At first the working group was not so multiprofessional as it is now
- In 2012 the new multiprofessional team was established

# Good recommendations

Members of the project 2012-

- Marja-Kaarina Koskinen
- Raija Lahdenperä
- Harri Laitinen
- Leila Muukkonen
- Timo Kouri
- Marja Nikiforow
- Mika Paldanius
- Tarja Tick-Sinkkilä
- Maija Saijonkari
- Seija Tuokko ( Chairman)

# How we started ?

- ISO STD 15189
- Discussions, how we should go forward together
- The book, that Seija Tuokko has written

# Later

- Systematic search of the knowledge with Library and Knowledge Services
- Literature search results
- In september 2013 we made an agreement with Nursing Research Foundation (NRF)

# The Nursing Research Foundation

- The aim of the NRF is to develop and establish evidence-based nursing in Finnish health care so that nursing interventions are effective, appropriate, feasible and/or meaningful.
- The mission is to be the well-known and reputable institution in producing, disseminating and providing a framework for the use of the best available evidence to inform clinical decision-making to improve health outcomes in Finland.

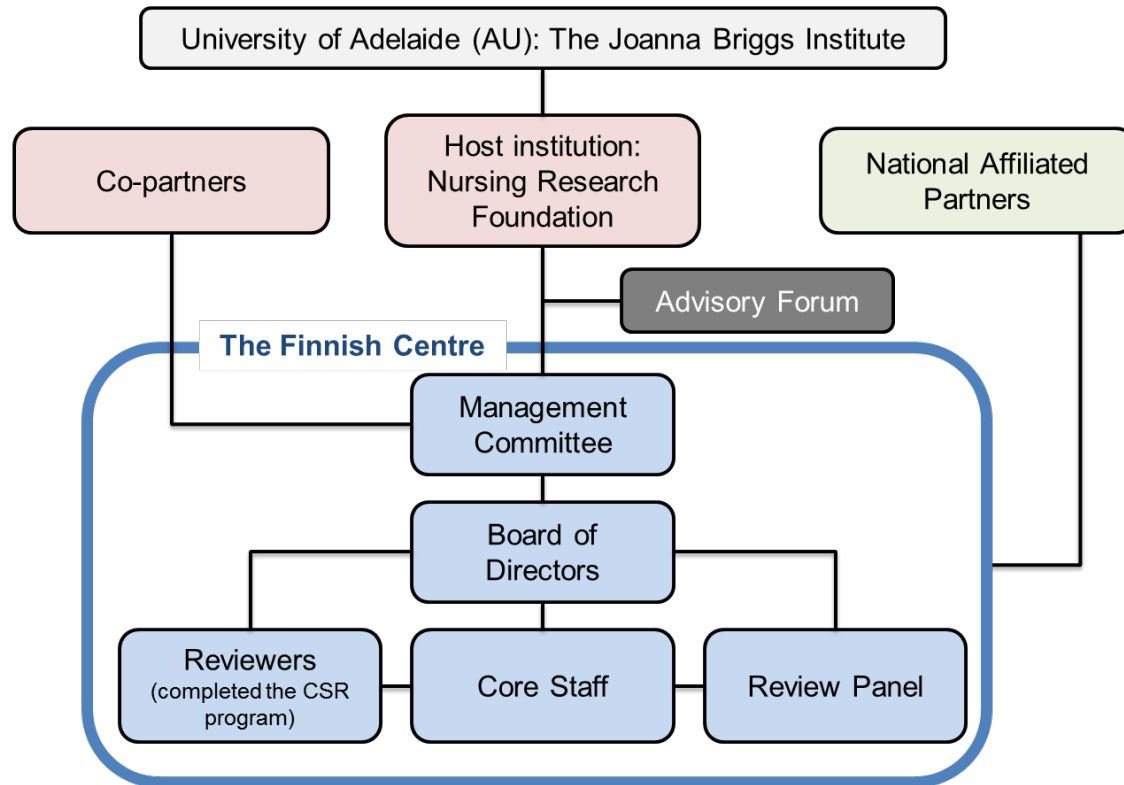
# The Nursing Research Foundation

- **Tasks**
- To produce the best available evidence:  
Evidence-Based Guidelines, Handbooks
- To disseminate the best available evidence:  
Lectures and education in the field of  
evidence-based health care, publications
- To support the implementation of the best  
available evidence

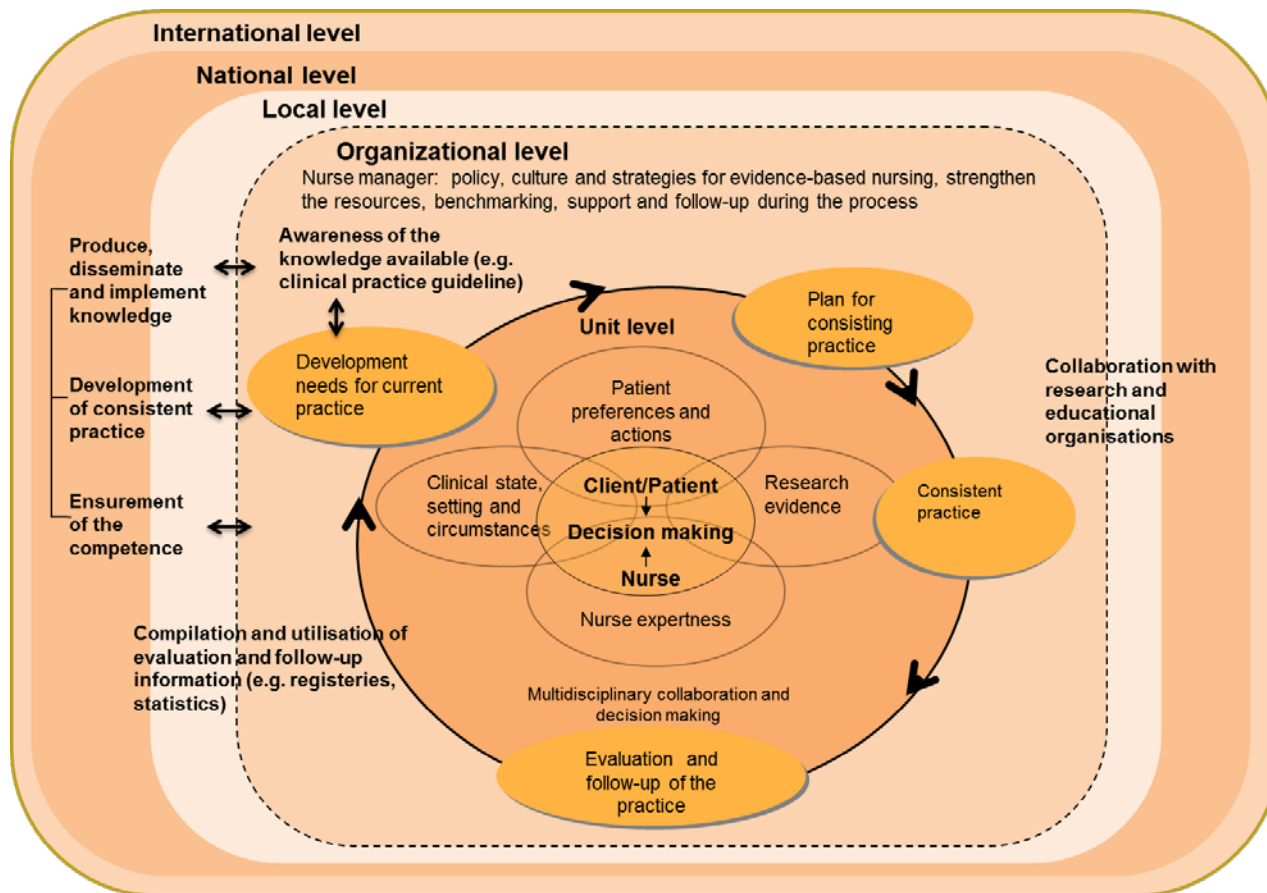
# Standards in Pre-analytics



## Network of the Finnish Centre for Evidence-Based Health Care







An operational model for developing evidence-based practice. (© the Nursing Research Foundation)

CONTENT	National level	Local level	Organsational level	Individual nurse	E v i d e n c e  b a s e d  n u r s i n g
<b>Produce, disseminate and implement knowledge</b>	Policy and strategies for EBP <ul style="list-style-type: none"> <li>• Reseach policy</li> <li>• Databases</li> <li>• Responsibilities</li> <li>• National guidelines</li> </ul>	Plans for implementation and development of systematic reviews and guidelines Local networks <ul style="list-style-type: none"> <li>• Structure for information dissemination</li> </ul>	Participation in local networks <ul style="list-style-type: none"> <li>• Information dissemination</li> <li>• Availabilty of synthesized evidence</li> </ul>	Evidence-based nursing practise	
<b>Development of consistent practice</b>	Support for evidence synthesis <ul style="list-style-type: none"> <li>• Research and education</li> <li>• Development projects</li> <li>• Evaluation and follow-up of EBP</li> </ul>	Responsibilities for consistent practises <ul style="list-style-type: none"> <li>• Guideline implementation</li> <li>• Evaluation and follow-up of EBP</li> </ul>	<ul style="list-style-type: none"> <li>• Development of evidence-based consistent practises</li> <li>• Evaluation and follow-up of EBP</li> <li>• Participating in development projects</li> <li>• Benchmarking</li> </ul>	<ul style="list-style-type: none"> <li>• Comminment to evidence-based consistent practice</li> <li>• Nursing documentation</li> <li>• Evaluation of patient care</li> </ul>	
<b>Ensurement of the competence</b>	Comptence needed for EBP Support for competence development  Model for using different kind of expertice in practice	<ul style="list-style-type: none"> <li>• Plans to strengthen competence for EBP</li> <li>• Collaboration with local research and educational institutions</li> </ul>	<ul style="list-style-type: none"> <li>• Methods to evaluate nurses competence for EBP</li> <li>• Collaboration with local educational institutions: e.g. curriculum development, continuing education</li> </ul>	<ul style="list-style-type: none"> <li>• Development and evaluation of own expertice and competence</li> </ul>	
<b>Responsibilities at different levels for developing consistent practises (Holopainen et al 2010)</b>					

# Evidence-based knowledge in the recommendation

A = strong evidence

B = moderate evidence

C = not much evidence

D = no evidence

- Current Care Guidelines are independent, evidence-based clinical practice guidelines
- These national guidelines cover important issues related to Finnish health, medical treatment as well as prevention of diseases.

# For whom

- For those who send patient`s/ customer`s to the laboratory examinations
- Health care staff, who guide their patients and customers to the phlebotomy

# Our aim

- Prevent wrong laboratory results
- Avoid needless remeasurements

# Pre-examination processes

- Patient's guidance to the phlebotomy
- Medical need
- Patient's agreement
- Documented procedures and information for pre-examination activities to ensure the validity of the results of examinations (ISO 15189:2012)

# Information for patients and users

- Information available for patients and users of the laboratory services
- Instructions for the preparation of the patient

# Request form information

- The examinations offered by the laboratory
- Information needed for examination performance and results interpretation
- Family history
- Travel and exposure history
- Communicable diseases
- Other clinically relevant information



# Instructions for pre-collection activities

- Completion of request form or electronic request
- Preparation of the patient
- Special timing of collection
- Clinical information (relevant info)

# Instructions for collection activities

- Patient's and sample's identification
- Successful preperaption
- Instruction for pre-collection activities
- Patient's self collected specimen
- Urine collection procedure

# Materials and methods

- We have search literature material
- We have evaluated our findings
- We have done systematic seek and review about information for patients and users, request form information, instruction for pre-collection activities and instruction for collection activities.

# Results

- After systematic seek and review, we have continued to read and go through specific articles in smaller groups (from two to three persons per group).
- We have used Joanna Briggs Institute's Review manual and current care guidelines in the review process, when we rated the strength of evidence of the selected articles and publications.
- We have discussed about the issues and articles in our monthly meetings and we have had a mentor from the Nursing Research Foundation, who has helped us in the process.
- We have written a few drafts and our aim is to finish this recommendation at the end of this year.

# Conclusion

- Reliable laboratory results are based on good pre-analyticals and patient`s guidance before phlebotomy. Most of the errors, even 60-90% depending on the environment, are indicated before analyses.
- The pre-analytic phase is a complex and dynamic process, which needs standards.
- The processes can differ within the hospital and from one hospital environment to the next.
- Standards/ recommendations reduce the impact of the pre-analytical errors.
- They should support strategies and practical issues that would ease the implantation of standards in practice.