

Laboratory parameters in the elderly

Submission date 23/05/2015	Recruitment status No longer recruiting	☐ Prospectively registered ☒ Protocol
Registration date 27/05/2015	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 18/05/2023	Condition category Other	☐ Individual participant data

Plain English summary of protocol

Background and study aims

Laboratory tests are essential to diagnose issues and make treatment decisions. Interpretation of individual results relies on accurate reference intervals and decision limits. A lot of resources are spent on elderly patients but we know very little about accurate reference intervals. The SENIORLAB study aims to address this gap of knowledge by investigating a large variety of laboratory parameters in clinical chemistry, haematology and immunology.

Who can participate?

Senior individuals aged 60 or above, residing in Switzerland and describing themselves as healthy.

What does the study involve?

This is an observational study which involves a visit to the study centre. There will be basic measurements (blood pressure, weight and height) and a fasting blood test. Then participants will be periodically contacted every 3 to 5 years to evaluate their health status.

What are the possible benefits and risks of participating?

Participants receive a selection of results from laboratory tests relevant for healthy seniors (such as glucose, HbA1c, and creatinine). The risk of participation can be considered to be very low and relates to the risk of phlebotomy of a peripheral vein, usually in the cubital region.

Where is the study run from?

Labormedizinisches Zentrum Dr. Risch in Liebefeld (Switzerland)

When is the study starting and how long is it expected to run for?

January 2007 to December 2025

Who is funding the study?

INOVA Foundation (Liechtenstein)

Who is the main contact?

1. Dr Martin Risch (martin.risch@ksgr.ch)
2. Dr Lorenz Risch (lorenz.risch@risch.ch)

Contact information

Type(s)

Scientific

Contact name

Dr Martin Risch

Contact details

Kantonsspital Graubünden
Zentrallabor
Loësstrasse 170
Chur
Switzerland
7000

Type(s)

Public

Contact name

Dr Lorenz Risch

ORCID ID

<https://orcid.org/0000-0003-2692-6699>

Contact details

Labormedizinisches Zentrum Dr. Risch
Waldeggstrasse 37
Liebefeld
Switzerland
3097

Additional identifiers

Study information

Scientific Title

SENIORLAB: a prospective observational study investigating laboratory parameters and their reference intervals in the elderly

Acronym

SENIORLAB

Study objectives

In clinical practice, laboratory results are very often important when it comes to make diagnostic, therapeutic and prognostic decisions. Interpretation of individual results relies on accurate reference intervals and decision limits. Despite a considerable amount of resources in clinical medicine spent on elderly patients, accurate reference intervals for the elderly are only rarely available. The SENIORLAB study was set out to address this gap of knowledge

determining reference intervals in the elderly by investigating a large variety of laboratory parameters in clinical chemistry, hematology, and immunology.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Ethics Committee Bern (Kantonale Ethikkommission Bern; KEK), 05/01/2009 & 29/07/2013 (amendment), ref: 166/08

Primary study design

Observational

Study design

Single-center observational trial

Study type(s)

Quality of life

Health condition(s) or problem(s) studied

Subjectively healthy elderly persons aged 60 and over

Interventions

An extensive baseline evaluation is undertaken in the study participants. The participants are followed up for quality of life, morbidity and mortality.

Intervention Type

Other

Primary outcome(s)

Evaluation of robust reference intervals

Key secondary outcome(s)

1. Associations between different parameters
2. Diagnostic characteristics of parameters to diagnose different circumstances
3. Prevalence of occult disease in subjectively healthy individuals
4. Risk factors for outcomes

Completion date

31/12/2025

Eligibility

Key inclusion criteria

1. Aged 60 or older
2. Resident in Switzerland
3. Subjective perception of being healthy
4. Fasting state when going for baseline examination

Participant type(s)

Healthy volunteer

Healthy volunteers allowed

No

Age group

Senior

Sex

All

Key exclusion criteria

1. Known diabetes mellitus
2. Known thyroid disease
3. Current glucocorticoid use
4. Active neoplastic disease during the past 5 years
5. Consumption of more than 5 pharmacologically active substances (polypharmacy)
6. Hospitalisation during the past 4 weeks

Date of first enrolment

28/05/2009

Date of final enrolment

31/12/2011

Locations

Countries of recruitment

Switzerland

Study participating centre

Labormedizinisches Zentrum Dr. Risch

Waldeggstrasse 37

Liebefeld

Switzerland

3097

Sponsor information

Organisation

Labormedizinisches Zentrum Dr. Risch

ROR

<https://ror.org/030f5x630>

Funder(s)

Funder type

Research organisation

Funder Name

INOVA Research Foundation (Forschungs- und Förderstiftung INOVA) Principality of Liechtenstein

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Other

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	15/05/2018		Yes	No
Results article	8 year follow up	17/05/2023	18/05/2023	Yes	No
Protocol article	protocol	01/01/2017		Yes	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes
Study website	Study website	11/11/2025	11/11/2025	No	Yes