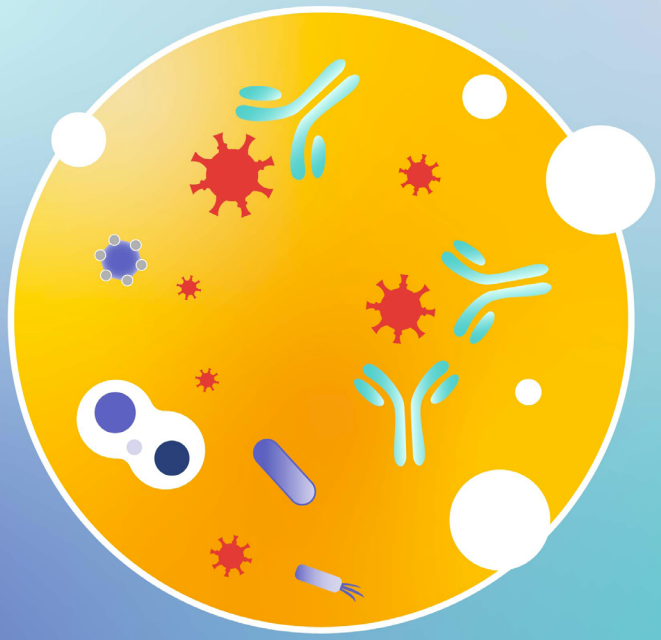
Support-e

SUPPORTing high quality evaluation of covid-19 convalescent plasma throughout EUROPE

www.support-e.eu

SUPPORTING HIGH QUALITY EVALUATION OF COVID-19 CONVALESCENT PLASMA THROUGHOUT EUROPE



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SUPPORT-E

(SUPPORTing high quality evaluation of COVID-19 convalescent plasma throughout Europe)

The main goal of the SUPPORT-E project is to provide support to high quality clinical evaluation of **COVID-19 Convalescent Plasma (CCP)**. After an accurate analysis of the data collected also through the EU-CCP database, SUPPORT-E team will proceed to achieve a consensus on the appropriate use of CCP in the treatment of COVID-19 across Europe. Ultimately, the Consortium will share its findings on the effectiveness or not of CCP as a therapeutic means to tackle COVID-19 and put forward evidence-based recommendations to be applicable throughout Europe in the current and potential epidemiological outbreaks.

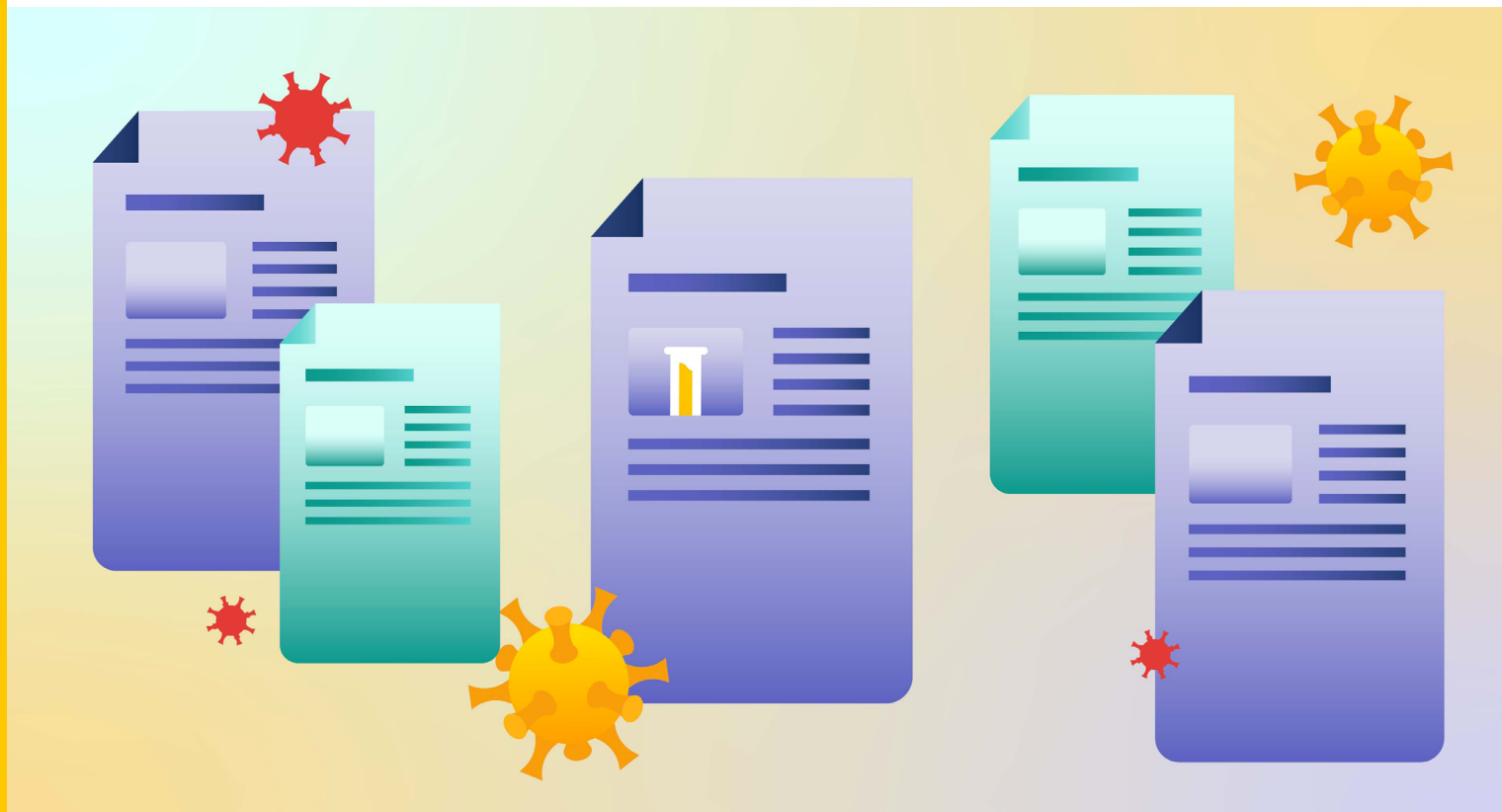
The **SUPPORT-E Consortium** is composed of 12 partners under the leadership of the European Blood Alliance, the association of not-for-profit Blood Establishments (BEs), with 26 members throughout the European Union and EFTA States that overall manage 17 million blood donations per year.

About CCP

CCP is plasma collected from COVID-19 recovered patients. CCP contains antibodies that could neutralise SARS-CoV-2 and thus may improve disease course in patients with SARS-CoV-2.

About EU-CCP Database

The European Commission is working together with Member States, the European Blood Alliance (EBA) and the SUPPORT-E project partners to provide a platform to support the study of convalescent plasma as a treatment for COVID-19 patients. The open-access database gathers and makes available data on convalescent plasma donations and patient outcomes following transfusions. It includes data from European blood establishments regarding convalescent donors, plasma collection, and plasma components, as well as from clinical trials and from wider monitored use and will consolidate European evidence on the safety and effectiveness of this therapy.



GLOSSARY

Clinical trials
A study performed to investigate the safety and/or efficacy of a medicine. For human medicines, these studies are carried out in human volunteers.

Monitored access use
The use of an unauthorised medicine outside a clinical study in individual patients under strictly controlled conditions. This helps to make medicines that are still under development available to patients.

PRNT (Plaque Reduction Neutralisation Test)
A test used to quantify the titer of neutralising antibody for a virus.

MN (Microneutralisation) assay
A highly sensitive and specific test for detecting virus- specific neutralising antibodies.

ELISA (Enzyme-Linked ImmunoSorbent Assay)
A plate-based assay technique designed for detecting and quantifying soluble substances such as peptides, proteins, antibodies, and hormones.

SWOT (Strengths, Weaknesses, Opportunities, Threats) Analysis
A tool for strategic assessments used to help an organisation to identify strengths, weaknesses, opportunities and threats related to project planning.

SoHO (Substances of human origins)
Substances like blood and blood components, tissues and cells et al.

Gap Analysis
A particular kind of analysis that involves the comparison of actual performance with potential or desired performance.

KEY SYMBOLS

- COMPLETED
- IN PROGRESS
- COMING SOON
- STARTING
- FUTURE STEP
- ONGOING

WP 7 MANAGE AND COORDINATE PROJECT AND PROJECT FINANCES

WP 6 DISSEMINATE PROJECT RESULTS

WP 1

ASSESS AND MONITOR THE ONGOING AND UPCOMING CLINICAL TRIALS

Produce preliminary clinical trials guidelines and assessment criteria.

Produce preliminary monitored access programmes guidelines.

WP 2

INCLUDE SELECTED CLINICAL TRIALS AND MONITORED ACCESS PROGRAMMES IN SUPPORT-E AND PROVIDE FUNDINGS

Elaborate a new kind of clinical trials to evaluate CCP.

Ensure high quality data set accrual in EU CCP Database.

Contact stakeholders to promote the new generation clinical trials.

WP 3

MANAGE THE EU CCP DATABASE AND COLLECT THE DATA

WP 2 - 3

Analyse data collected in EU CCP Database.

WP 4

MAP THE USE OF ANTIBODY ASSAYS FOR THE CCP DONORS SELECTION

Provide access to neutralisation assays.

Develop, calibrate and standardise novel neutralisation assays.

Establish a connection between antibody characteristics and clinical outcomes.

Perform SWOT assessment to support future SoHO development.

Create a mathematical model that will assist EU countries to financially manage the activities that are required to provide CCP as therapy during future pandemics.

WP 5

INTEGRATE ALL THE INFORMATION GENERATED BY THE PROJECT

Formulate recommendations on therapeutical use of CCP.

WP 1 – Assessing CCP, conducting clinical evaluation and defining best practices

TASK 1

Screen and assess upcoming and ongoing clinical trials on CCP, evaluating all the information produced at international level about CCP collection and its efficacy in treatment of COVID-19

Articles and studies reviewed so far:

- **2,855 articles**
  - 22 considered relevant
- **2,944 clinical studies**
  - 363 considered relevant
- **3,018 monitored access studies**
  - 319 considered relevant

TASK 2 - 3

Following the initial screening, draw up preliminary guidance documents, including the assessment criteria, for selecting and evaluating European clinical studies **(Task 2)** and monitored access programmes **(Task 3)**, respectively.

TASK 4

Identify and continuously monitor those trials not selected in the initial screening and the continuous state of the art relating the collection, characterisation and efficacy of CCP in the treatment of patients with COVID-19.

WP 2 – Supporting high quality clinical evaluation and producing data-sets for inclusion in the database

TASK 1

Involve clinical trials and monitored access programmes, selected via the guidelines produced by WP 1, in SUPPORT-E.

CLINICAL TRIALS AND MONITORED ACCESS PROGRAMMES SO FAR			
	RANDOMISED TRIALS CONTACTED	NON RANDOMISED CONTACTED	EXPRESSED INTEREST
EARLY STAGES	18	9	17
SECOND PHASE	9	4	4

TASK 2

Provide funding for selected clinical trials with limited own resources.

- An extended **gap analysis of the design of selected trials** has been performed.
- Based on this, **the design of a "next generation" clinical trial** addressing these critical knowledge gaps **is under development**.

TASK 3

Ensure high-quality dataset accrual in the EU-CCP Database.

TASK 4

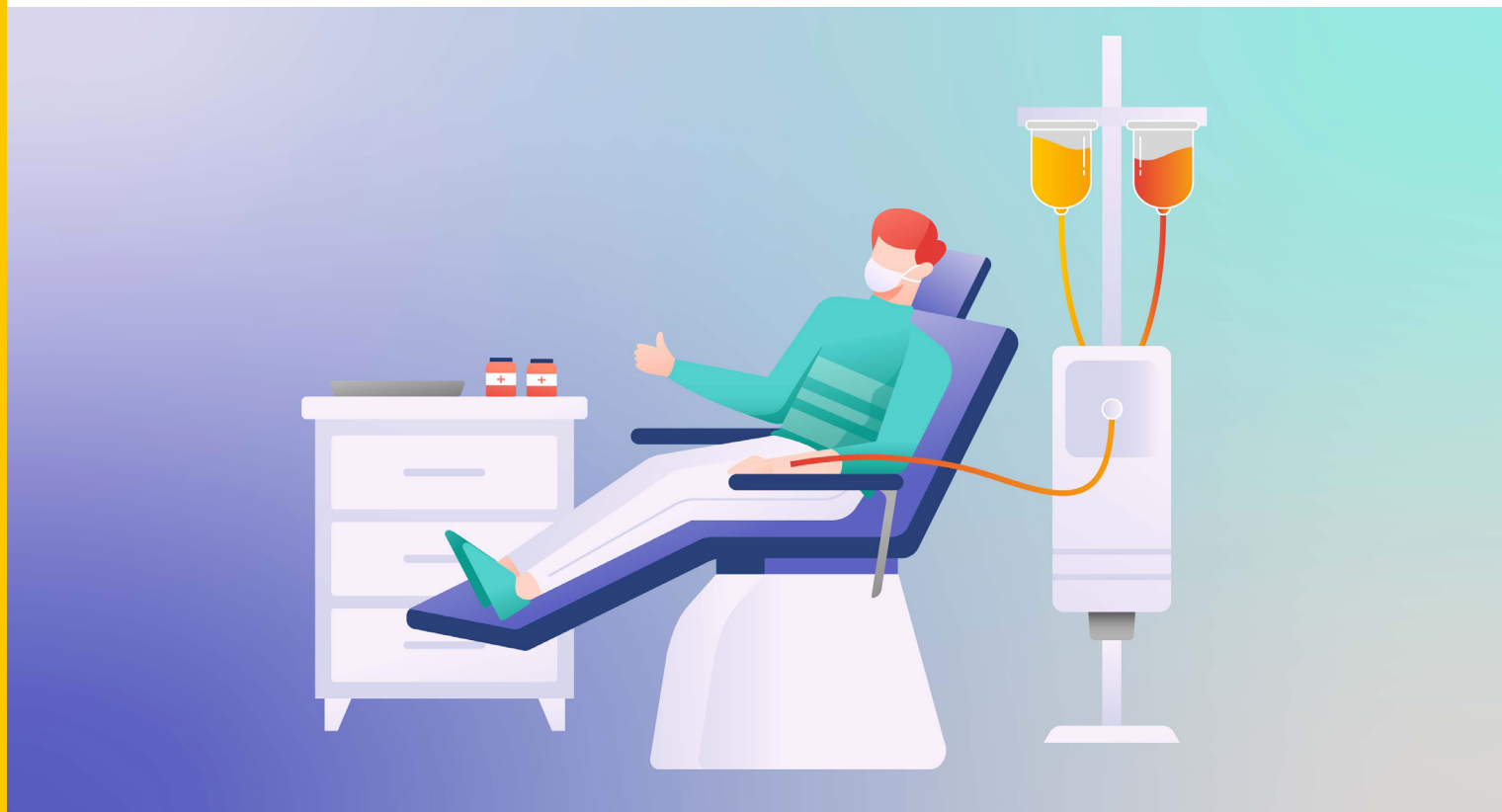
Interact with relevant stakeholders to promote high-quality evaluation to CCP and to generate novel clinical data starting with the promotion of the evaluation of early administration of very high titre CCP in high-risk patients.

TASK 5

Enable interactions between clinical trial groups and reference labs to provide more information on anti-SARS-COV-2 antibody testing. These info will be elaborated later by WP4 team.

TASK 6

Undertake further analysis on CCP Collection and use.



WP 3 – Govern the EU-CCP Database

TASK 1

Govern the EU- CCP Database and define the types and categories of data to be collected.

The data to be collected:

- **CCP collection policy and strategy by each Blood Establishments.**
- **Donation data - CCP collection and product characteristics.**
- **Patient data - use of the CCP and clinical follow-up of recipients.**
- **Data modelling and database structure.**

TASK 2

Collect data and monitor real time data accrual.

So far:

- **137,000 recorded plasma donation** from over **55 blood enstablishments**.
- Data related to **823 patients** by **8 countries**.

TASK 3

Analyse data mainly for quality and safety, generating repositories and reports.

WP 4 – Improving plasma potency assessment

TASK 1

Map, through a survey, the access and nature of neutralising antibody testing across Europe.

- Questionnaire distributed to **46 parties**.
- To calibrate the live virus neutralising antibody assays to an international standard, a panel of **15 convalescent plasma** samples with no, low or high titre antibodies were collected.
- The panel has been shared with **17 laboratories** within **11 European countries**. This has (and will continue to) helped the cross-border and cross-study comparison of trial data, including the assessment of neutralising antibody titres in used plasma.

TASK 2

Grant cross-border access to standard PRNT test to new and ongoing clinical trials that need help.

So far:

- **100 samples tested**.

TASK 3

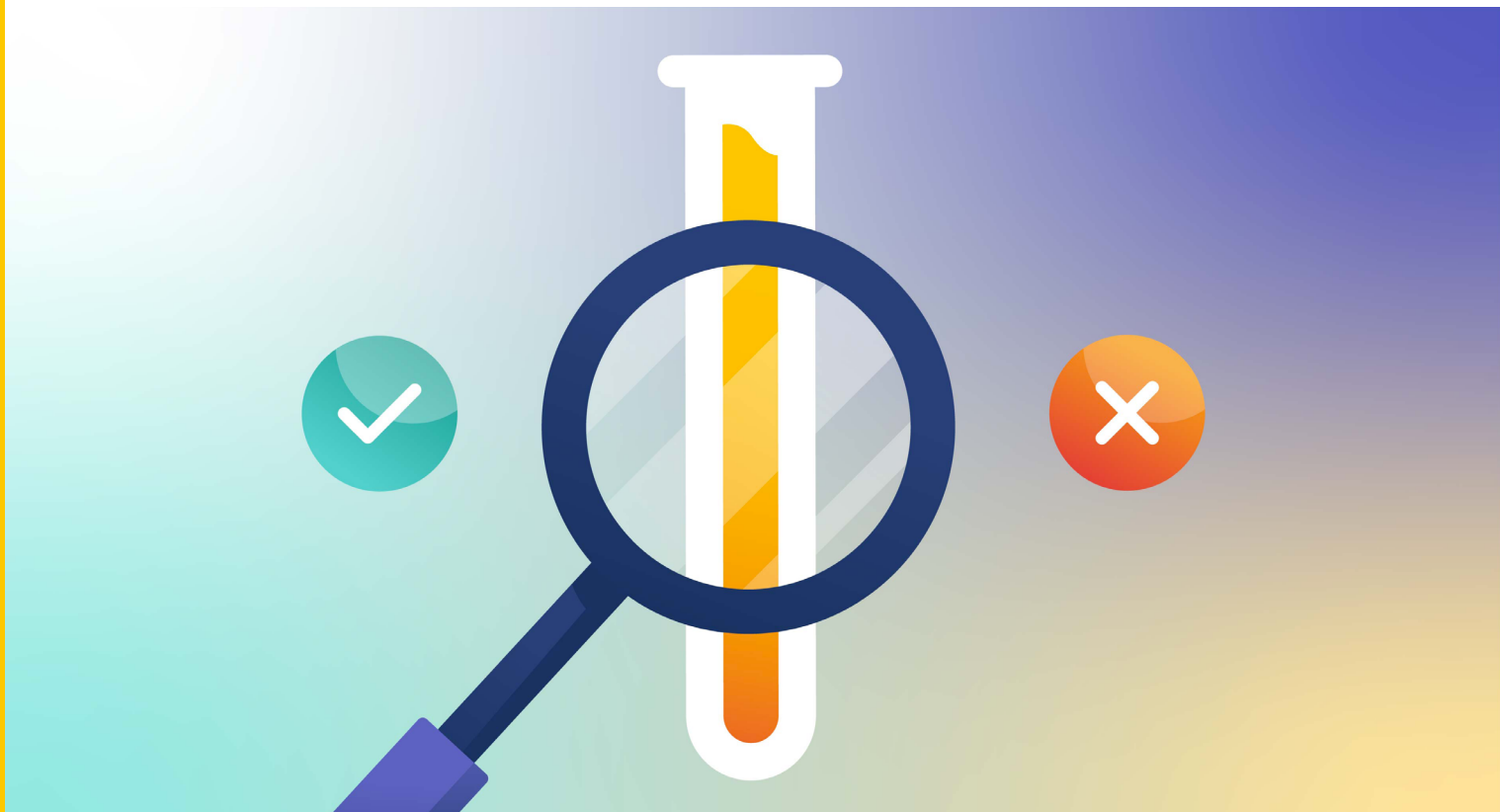
Compare commercially available ELISA-based assays for antibody testing in the process of donor selection to PRNT and/or MN tests.

Results:

- Scientific information and data have been generated by all WP 4 members that resulted in several **peer-reviewed publication**.
- These studies suggest that some commercial **ELISAs** may perform effectively as surrogate assays or as a **reliable proxy for neutralising antibody titre**.

TASK 4

Establish a relationship between antibody characteristics of all plasmas administered and clinical outcomes.



WP 5 – Developing recommendations and preparing for the future

TASK 1

Integrate all project-generated information to determine safety and relative efficacy of convalescent plasma.

As a first step, the main limitations of the available evidence have been identified:

- Due to the rapid and unforeseen severity of the COVID-19 pandemic **there was insufficient time to develop a reliable standardised method** to measure the dose of antibodies within the CCP units used.
- **Differences in the volume of CCP** given will also **influence the dose of anti-SARS-CoV-2 activity for each patient.**
- **COVID-19 has varied presentations of onset of disease** and the understanding of how these develop and how they are related to disease pathology is **continually evolving.**

TASK 2

Create a mathematical model that will assist EU countries to financially manage the activities that are required to provide CCP as therapy during future pandemics.

- **The Health Economics Research Centre (HERC)**, University of Oxford, has **compared the financial impacts of a world with CCP to a world without the CCP** to assess affordability of a CCP programme and **provide information for national-level decisions for planning purposes**.

- **Key aspects** considered in the analysis were the eligible population for CCP and current care for this population, the uptake of CCP, the cost of the national programme and the direct impact of CCP on the healthcare resource use and costs.

TASK 3

Perform a SWOT assessment to support future SoHO developments.

First step - An initial list of elements considered:

- **Strategies to recruit donors of CCP to target new variants of the disease.**
- **Database for the collected CCP during different waves of the pandemic to correspond with emergence of new variants.**
- **Training sites and resources for measurement of neutralising antibody titres to ensure agreement in dose of CCP used across different nations.**
- **Distribution services to support quick and efficient use of CCP across network of countries.**

TASK 4 - 5

Once identified the best type of plasma to target SARS-CoV-2 and its multiple variants develop recommendations for the collection **(Task 4)** and its therapeutic use **(Task 5)**.

TASK 6

Draw up recommendations on how to better accelerate, coordinate, collaborate, assess innovations, maintain solidarity, and enhance overall efficacy of CCP in future outbreaks of SARS-CoV-2 or other novel pathogens.

WP 6 – Dissemination, exploitation and communication

TASK 1

Develop and enact a dissemination plan. Create a website and a visual identity to the project and dissemination materials like promotional videos and mini-interviews.

▶ WEBSITE ▶ VIDEO

TASK 2

Contribute to publications and press releases.

TASK 3

Draw up layman versions of technical reports.

TASK 4

Organise final meeting – stakeholder conference that will be held in June in Rome.

TASK 5

Interact with parallel projects and conduct dialogue with EU.

▶ Contacts have been made and introductory calls were organised with the following projects: **RECODID, MANCO, CoroNAb, ATAC, CARE.**

WP 7 – Project management

TASK 1

Coordinate project in order to ensure the proper implementation of the activities.

TASK 2

Manage project in order to ensure that the goals and deliverables are achieved in full within time, cost and resource constraints.

- A Scientific and Ethics Advisory Board has been established to **guarantee that all project ethical aspects are appropriately addressed and overseen**.

TASK 3

Manage administration and finance.

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Partners

eba
Safe blood for Europe

midt
Central Denmark Region
Aarhus University Hospital

Carlo Poma
Sistema Socio Sanitario
Regione Lombardia

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NHS
Blood and Transplant

STATENS SERUM INSTITUT

Sanquin

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