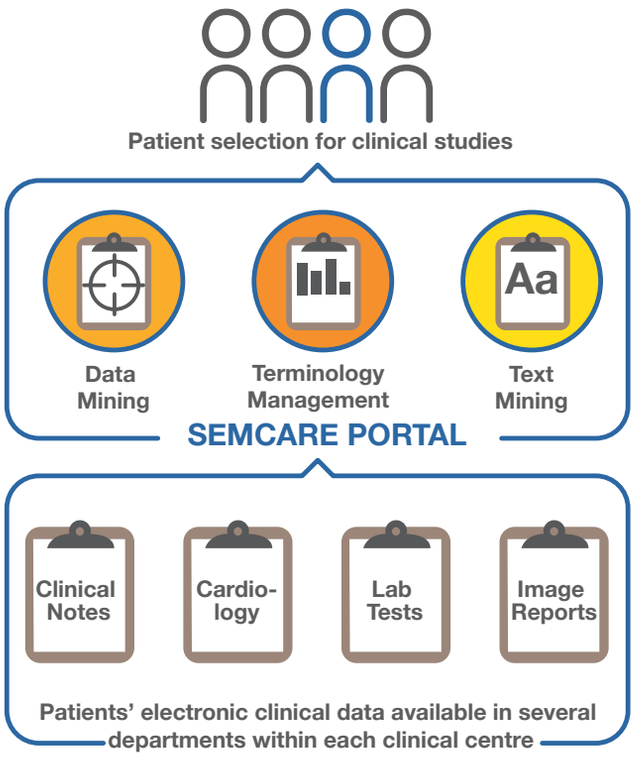
semcare

Semantic Data Platform for Healthcare

Currently, almost 80% of clinical trials fail to meet their patient enrolment quotas on time, causing delays in bringing new drugs to market. Exploiting patient-level data can optimize clinical studies in several ways, including better access to patients to new drugs and treatments and allowing pharmaceutical companies to earlier complete clinical trials, thus allowing drugs to reach the market in a shorter time frame.

The primary aim of SEMCARE is to build a semantic data platform able to identify patient cohorts based on clinical criteria scattered in heterogeneous clinical resources.

SEMCARE will allow a better diagnosis support, as well as a better selection and recruitment of patients for clinical studies especially those suffering from rare diseases



Aggregated patient-level data can support the identification of disease mechanisms and new discovery areas, improve drug safety surveillance, and decrease patient recruitment cycle times for clinical studies.

SEMCARE will integrate state-of-the-art text mining technologies and multilingual semantic resources (e.g. domain vocabularies, terminologies, nomenclatures, classifications, ontologies) to address specific idiosyncrasies of medical language like ambiguous terms, acronyms, compounds, derivations, spelling variants, uncorrected spelling errors, jargon, telegram style, etc.

Three hospitals from three different European countries (Netherlands, UK and Austria) are serving as pilot sites, implementing the system locally and using several uses cases (mainly rare diseases) for testing the toolbox. However, SEMCARE's long-term objective is to build a pan-European supported platform that hospitals all over Europe can use for patient identification in clinical studies and for diagnosis support, with a special focus on rare disorders.

By the end of the Project SEMCARE will deliver a prototype able to provide diagnostic support and allows patient identification for device therapies or clinical estudies based on patient-level records.

SEMCARE is carried out by an interdisciplinary team of researchers carefully selected by their specific scientific expertise.

- Averbis GmbH (**AVERBIS**). Germany
- Erasmus Universitair Medisch Centrum Rotterdam (**EMC**). Netherlands
- Medical University of Graz (**MUG**). Austria
- Saint George's University of London (**SGUL**). United Kingdom
- Synapse Research Management Partners S.L. (**SYNAPSE**). Spain

Project website: www.semcare.eu
Contact: info@semcare.eu

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