



UMC Utrecht

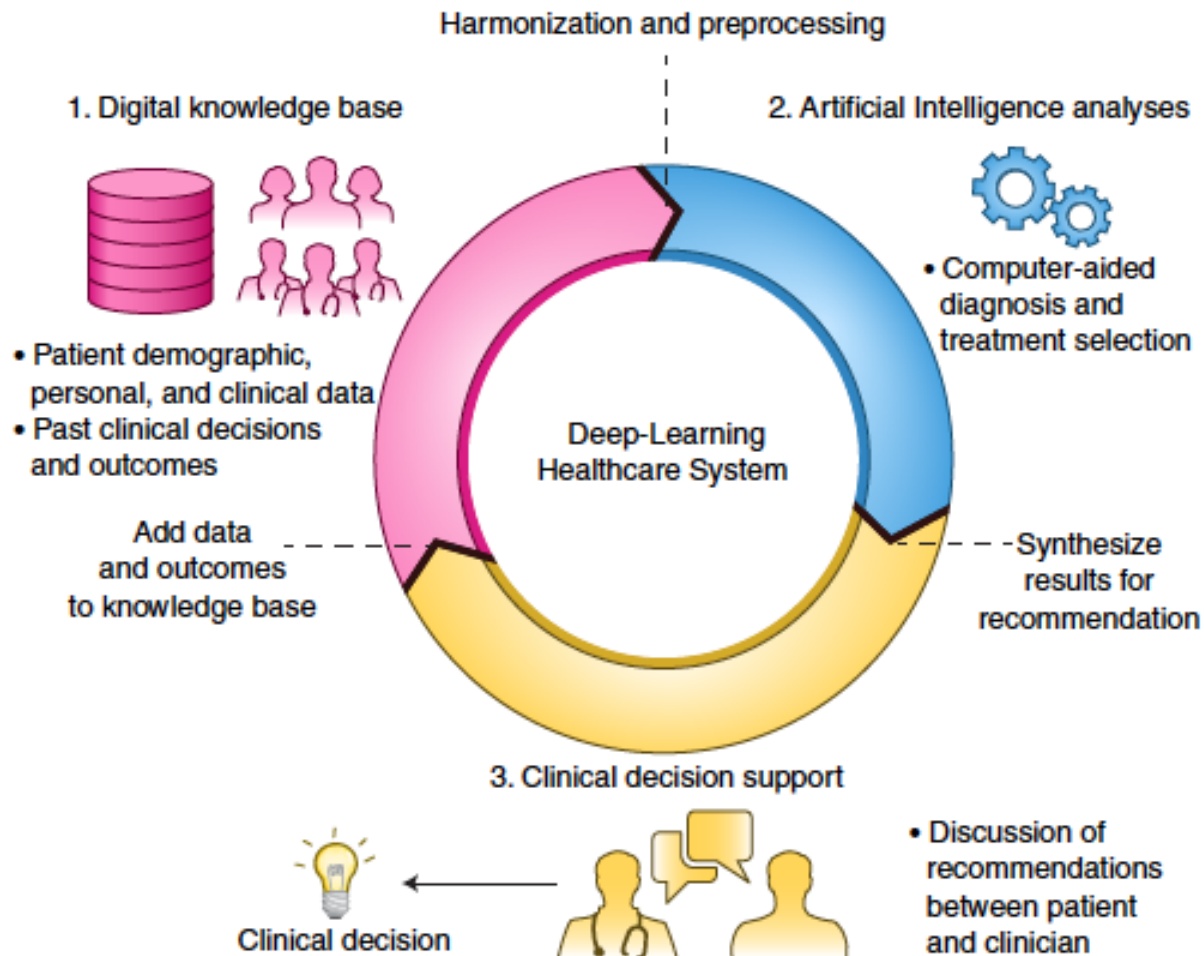
Registraties voor onderzoek

ZonMw congres Goed Gebruik Geneesmiddelen

Disclosure potential conflicts of interest

Voor bijeenkomst mogelijk relevante relaties:	Bedrijfsnamen
• Sponsoring of onderzoeksgeld	• CAPACITY-COVID: Hartstichting, British Heart Foundation, Servier, Novo Nordisk, Daiichi Sankyo, Amgen, Owkin, Novartis, Philips, EuroQoL • GENIUS-CHD: Hartstichting, British Heart Foundation, ZonMw.

Learning Healthcare system: Lessons from COVID-19



Cardiac complications in COVID-19

CARDIOVASCULAR FLASHLIGHT

doi:10.1093/eurheartj/ehaa288
Online publish-ahead-of-print 13 April 2020

COVID-19-related myocarditis in a 21-year-old female patient

In-Cheol Kim ¹, Jin Young Kim², Hyun Ah Kim ³, and Seongwook Han ^{1*}

¹Division of Cardiology, Department of Internal Medicine, Cardiovascular Center, Keimyung University Dongsan Hospital, Keimyung University School of Medicine, Keimyung University Dongsan Hospital, Keimyung University School of Medicine, Daegu, Republic of Korea; and Hospital, Keimyung University School of Medicine, Daegu, Republic of Korea
Center, Keimyung University Dongsan Hospital, 1035, Dalgubeol-daero, Dalseo-gu, Daegu, Republic of Korea
swahan@dsmc.or.kr

IMAGE FOCUS

doi:10.1093/ehjci/jeaa107

Myocarditis revealing COVID-19 infection in a young patient

Jean-François Paul*, Pierre Charles, Clémence Richaud, Christophe Caussin, and Christelle Diakov

Institut Mutualiste Montsouris, Paris, France

* Corresponding author. Institut Mutualiste Montsouris, 42 bd Jourdan, 75014 Paris, France. Tel: +33 1 5

Brief Report

March 27, 2020

ONLINE FIRST FREE

Cardiac Involvement in a Patient With Coronavirus Disease 2019 (COVID-19)

CASE REPORT



First case of COVID-19 complicated with fulminant myocarditis: a case report and insights

Features of 20 133 UK patients in hospital with covid-19 using the ISARIC WHO Clinical Characterisation Protocol: prospective observational cohort study

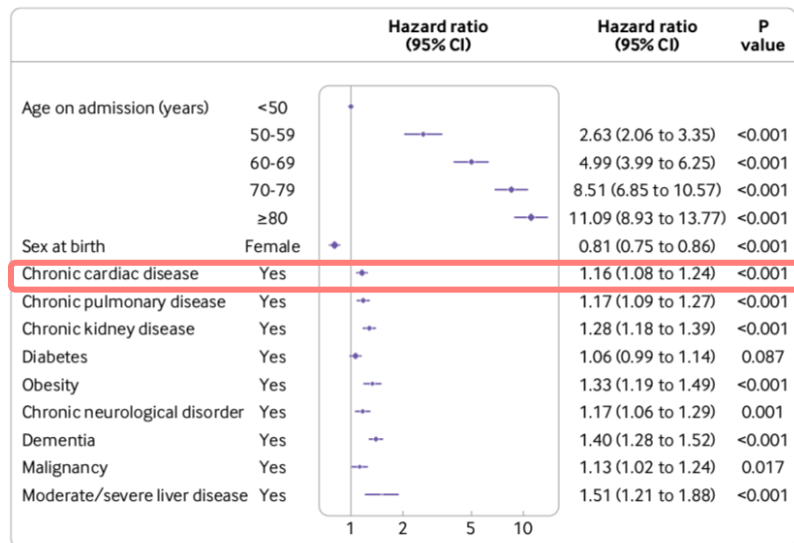


Fig 5 | Multivariable Cox proportional hazards model (age, sex, and major comorbidities), where hazard is death. Patients who were discharged were kept in the risk set (n=15 194; No of events=3911)



4b. CO-MORBIDITIES & Risk Factors
Charlson index will be calculated for each patient at analysis

Variable: chroniccard_mhyn

	YES	NO	N/A
4b.1. Chronic cardiac disease, including congenital heart disease (not hypertension) * must provide value	☐	☐	☐

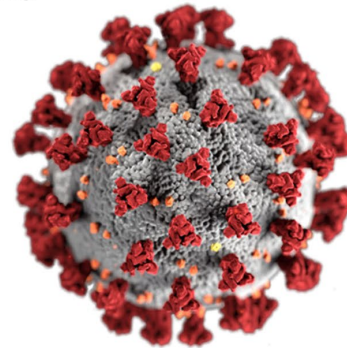
reset

Registry of patients with COVID-19 including cardiovascular risk and complications



CAPACITY is a registry of patients with COVID-19 and has been established to answer questions on the role of cardiovascular disease in this pandemic. It is an extension of the Case Record Form (CRF) that was released by the ISARIC (International Severe Acute Respiratory and Emerging Infection Consortium) and WHO (World Health Organisation) in response to the emerging outbreak of COVID-19.

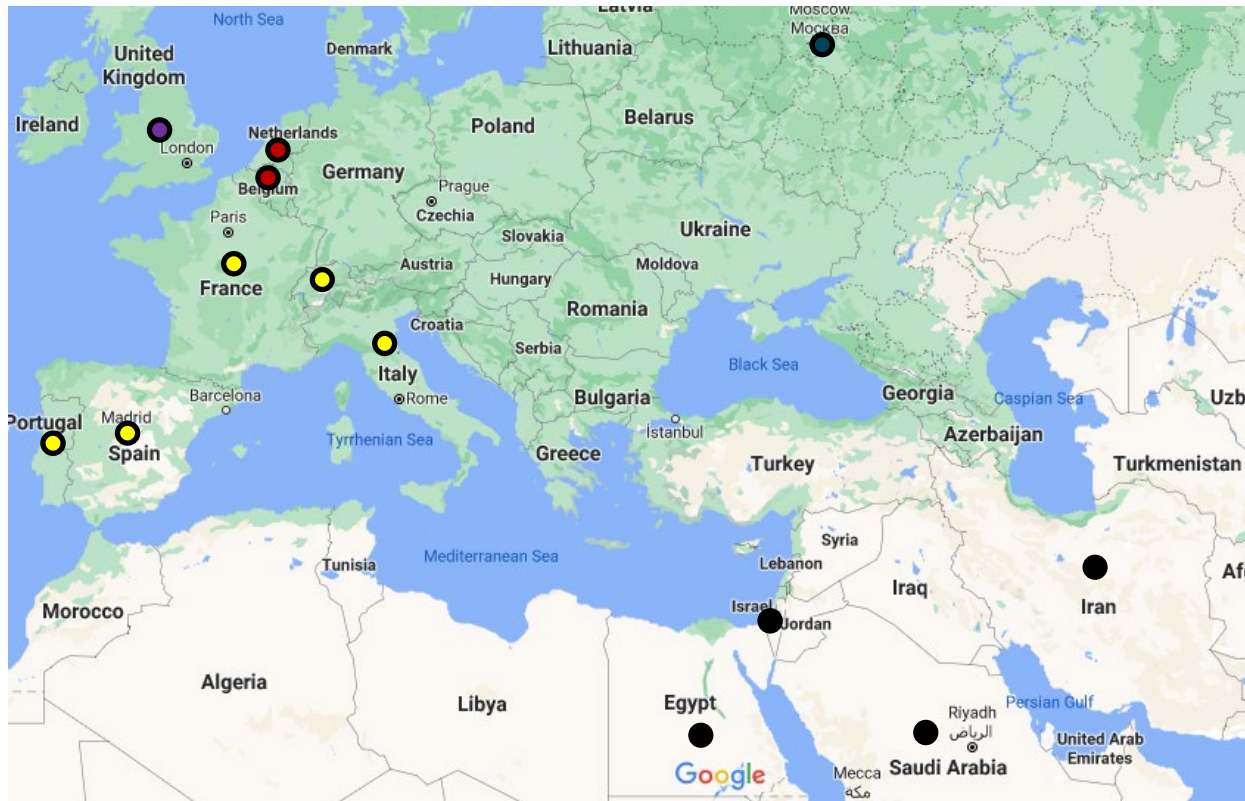
The aim of CAPACITY is to collect data regarding the cardiovascular history, diagnostic information and occurrence of cardiovascular complications in COVID-19 patients. By collecting this information in a standardized manner, CAPACITY can aid in providing more insight in (1) the incidence of cardiovascular complications in patients with COVID-19, and (2) the vulnerability and clinical course of COVID-19 in patients with an underlying cardiovascular disease.



- ♥ Cardiac history and cardiovascular risk factors
- 💊 Prior use of cardiac medication or NSAIDs
- ♥ ECG Electrocardiography (ECG)
- 🖥 Echocardiography
- 🎯 Cardiac MRI
- 🏥 Invasive cardiac procedures
- ♥ Cardiac complications
- 📊 Cardiac biomarkers
- 📅 Cardiac outcome during admission

Latest news and updates on <https://capacity-covid.eu>

CAPACITY-COVID collaborative consortium



75

Total number of centres
currently including

13

Total number of countries
currently including

- Netherlands/Belgium: n=5873
- United Kingdom: n=4448
- Southern – Europe: n=1007
- Middle– East: n=566
- Russia: n=223

TOTAL: 12,117

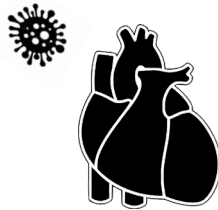


Results first study: Clinically diagnosed cardiac complications in first 3011 patients



Arrhythmia's/conduction disorders

Overall: 258 (8.6%)
Supraventricular tachycardia's: 189 (6.3%)
Ventricular arrhythmia's: 14 (0.5%)
Conduction disorders: 37 (1.2%)



Myocarditis

3 patients (0.5%)



Heart failure

Overall: 55 (1.8 %)
De novo: 38 (1.3%)



Ischemia

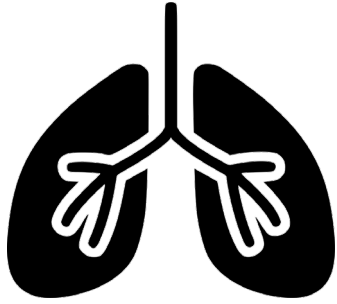
Overall: 55 (1.8 %)
De novo: 38 (1.3%)

Cardiac complications in patients hospitalised with COVID-19

Marijke Linschoten¹, Sanne Peters^{2,3,4}, Maarten van Smeden²,
Lucia S Jewbali^{5,6}, Jeroen Schaap⁷, Hans-Marc Siebelink⁸,
Peter C Smits⁹, Robert G Tieleman¹⁰, Pim van der Harst¹,
Wiek H van Gilst¹¹ and Folkert W Asselbergs^{1,12,13}
for the CAPACITY-COVID collaborative consortium

European Heart Journal: Acute Cardiovascular Care
1-7
© The European Society of Cardiology 2020
Article reuse guidelines:
sagepub.com/journalsPermissions
DOI: 10.1177/2048872620974605
journals.sagepub.com/home/acc
SAGE

Clinically diagnosed thromboembolic complications in 3011 patients



Pulmonary embolism

198 (6.6%)
156 (19.3% on ICU)



Stroke

11 (0.4%)



Ischemic Stroke

38 (1.8%)
71% died

medRxiv
THE PREPRINT SERVER FOR HEALTH SCIENCES



BMJ Yale

HOME | ABOUT

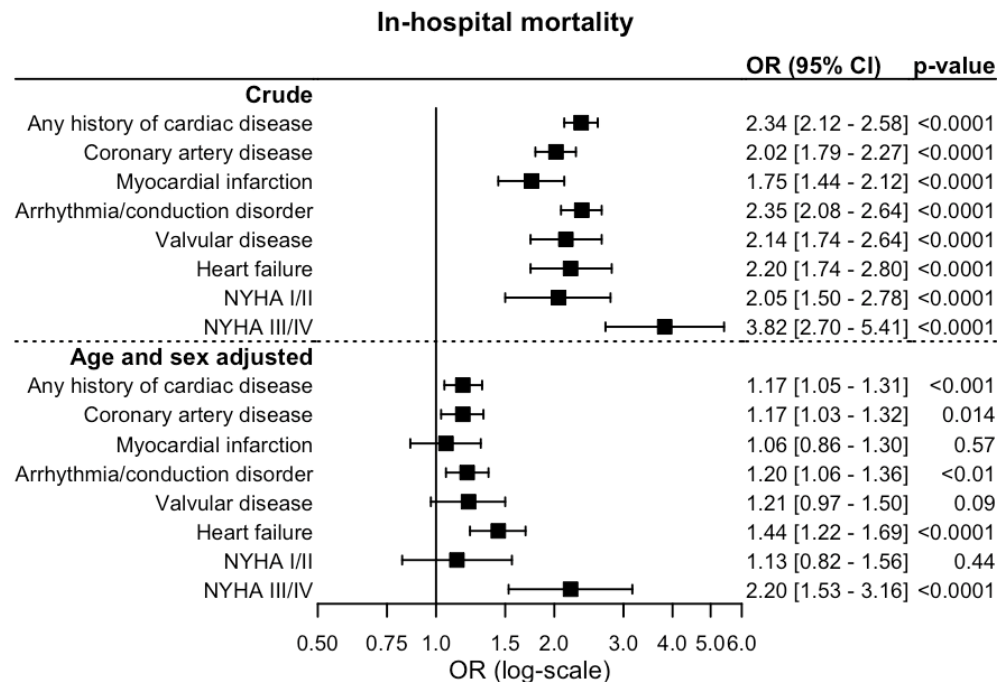
Search

[Comment on this paper](#)

Risk, clinical course and outcome of ischemic stroke in patients hospitalized with COVID-19: a multicenter cohort study

Wouter M. Sluis, Marijke Linschoten, Julie E. Buijs, J. Matthijs Biesbroek, Heleen M. den Hertog, Tessa Ribbers, Dennis Nieuwkamp, Reinier C. van Houwelingen, Andreas Dias, Ingeborg W.M. van Uden, Joost P. Kerklaan, H. Paul Bienfait, Sarah E. Vermeer, Sonja W. de Jong, Mariam Ali, Marieke J.H. Wermer, Marieke T. de Graaf, Paul J.A.M. Brouwers, Folkert W. Asselbergs, L. Jaap Kappelle, H. Bart van der Worp, Annemijn M. Algra
doi: <https://doi.org/10.1101/2021.03.11.21253189>

Preliminary results: Association pre-existing cardiac disease and in-hospital mortality



medRxiv
THE PREPRINT SERVER FOR HEALTH SCIENCES



BMJ Yale

HOME | ABOUT

Search

[Comment on this paper](#)

Clinical presentation, disease course and outcome of COVID-19 in hospitalized patients with and without pre-existing cardiac disease – a cohort study across sixteen countries

Marijke Linschoten, Folkert W. Asselbergs, CAPACITY-COVID collaborative consortium, LEOSS Study Group
doi: <https://doi.org/10.1101/2021.03.11.21253106>



FAIR principles: Findable – Accessible – Interoperable - Reusable Data



BBMRI Request Portal Podium

My Requests My Reviews

Request 1867 to CAPACITY COVID

DRAFT VALIDATION REVIEW APPROVED DELIVERY FINISHED

Details [Attachments \(2\)](#)

Title
Acute myocardial injury in patients with COVID-19

Organisation
Capacity covid

Request Types

- Data

<https://podium.bbmri.nl>

FAIR principles: Findable – Accessible – Interoperable - Reusable Data



[Azure DRE](#)

[About anDREa](#)

[DRE at work](#)

[Get Access](#)

[Contact](#)



What does it do?

Azure DRE provides functionality for both researchers and organizations



Analysis tools



Access anywhere



Safe & secure



Manage data



Be compliant

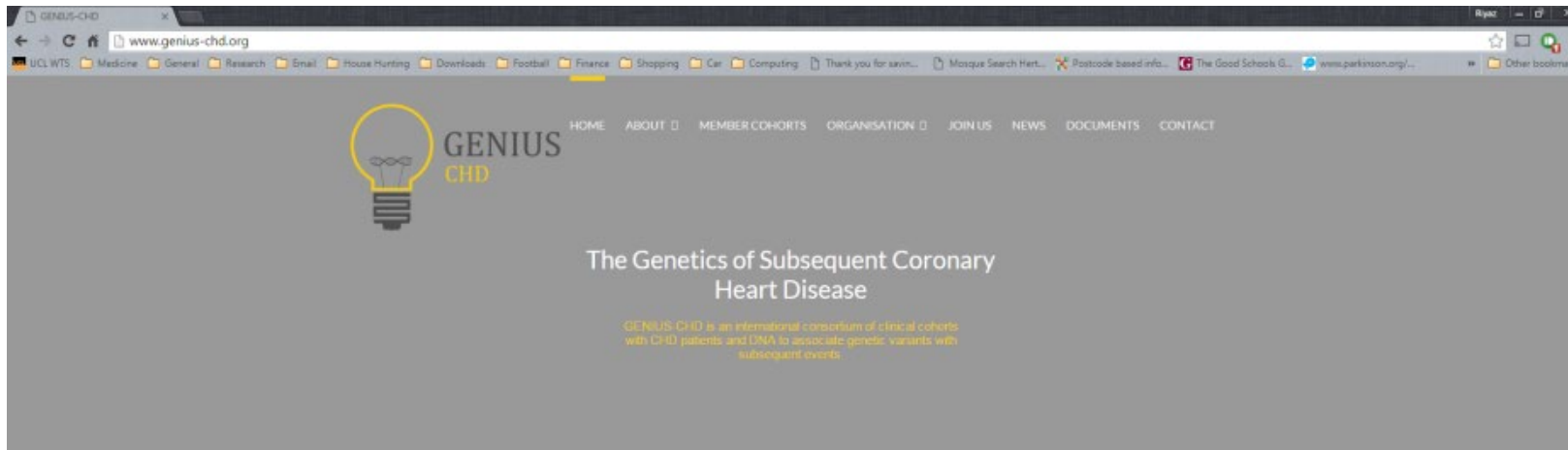
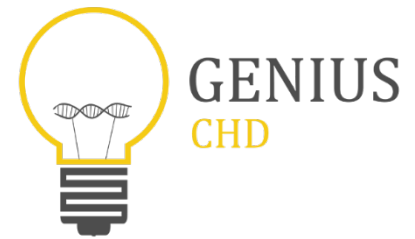


Collaborate

<https://www.andrea-consortium.org>

The GENIUS-CHD Consortium

The Genetics of Subsequent Coronary Heart Disease



What is GENIUS CHD?

GENIUS-CHD is a global effort to learn more about subsequent event risk in people with established coronary heart disease. Please click here for more information.

[More about GENIUS-CHD](#)



Join The Consortium

We encourage any PI with a suitable CHD patient cohort to consider participating in this global effort. Please click here for cohort eligibility criteria and how to join.

[Cohort eligibility criteria and how to join](#)



Documents

Documents and materials relating to consortium activity can be found here. The page is restricted, so please register first using the login page for access.

[GENIUS-CHD Documents \(members only\)](#)

[Coronary Artery Disease](#)

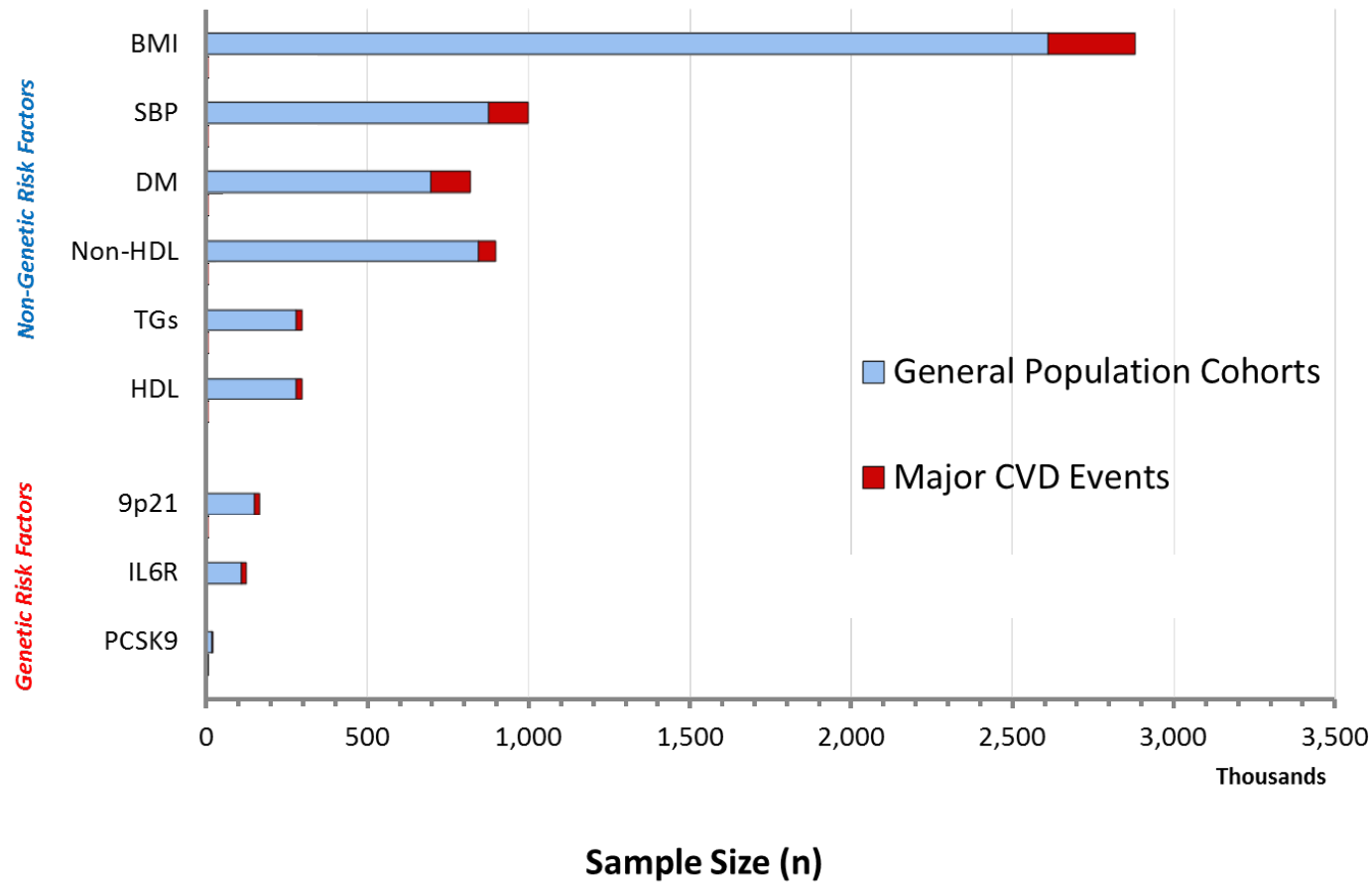
[Genetics of CAD](#)

[Biomarkers of CAD](#)

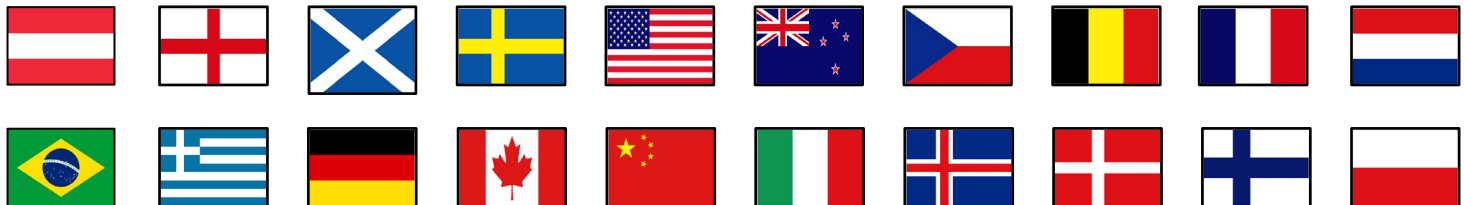
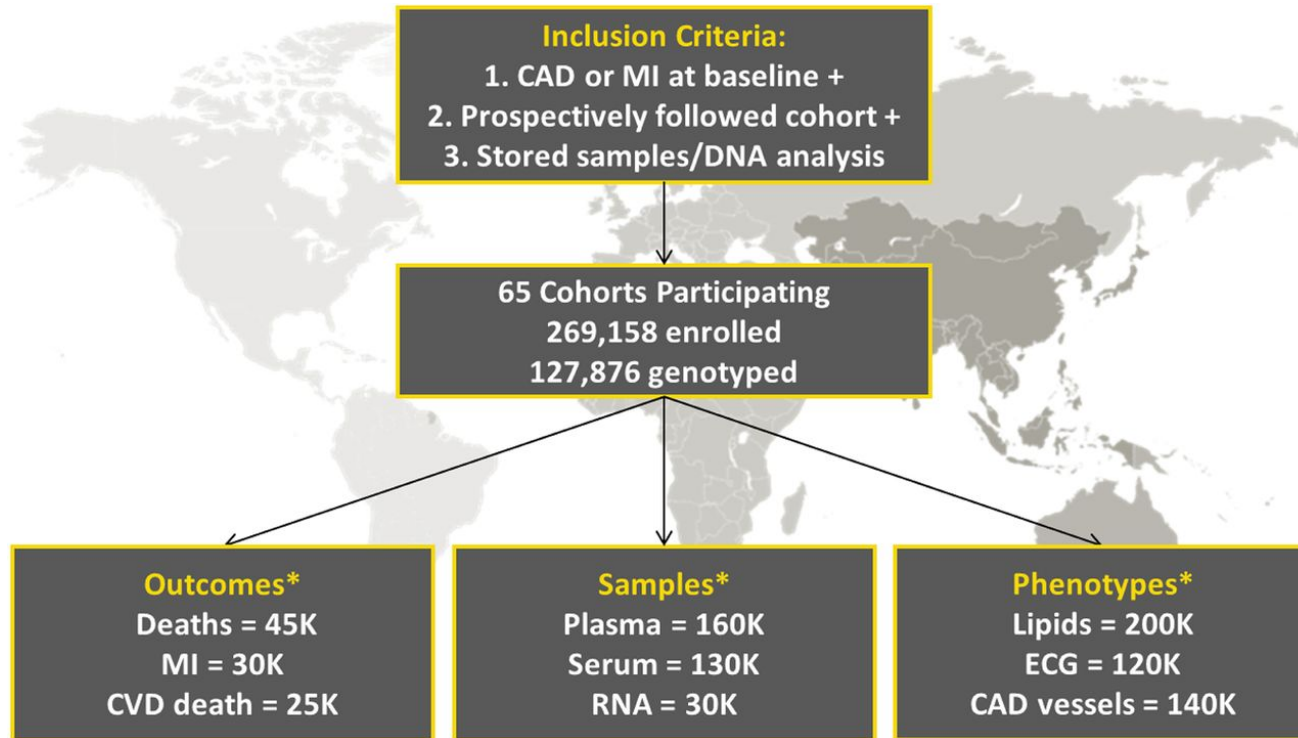


Where are the studies?

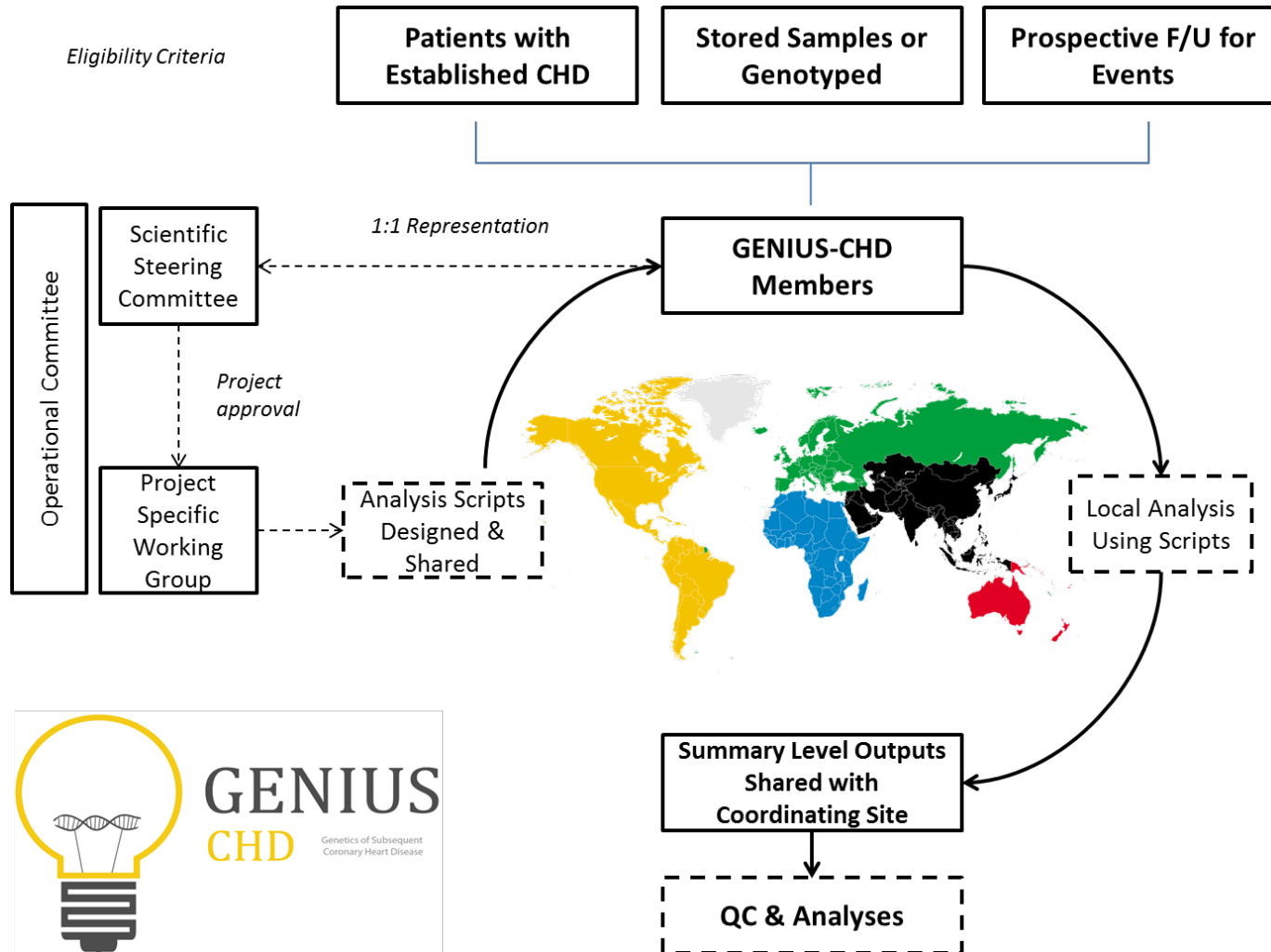
Risk Factors



GENIUS-CHD



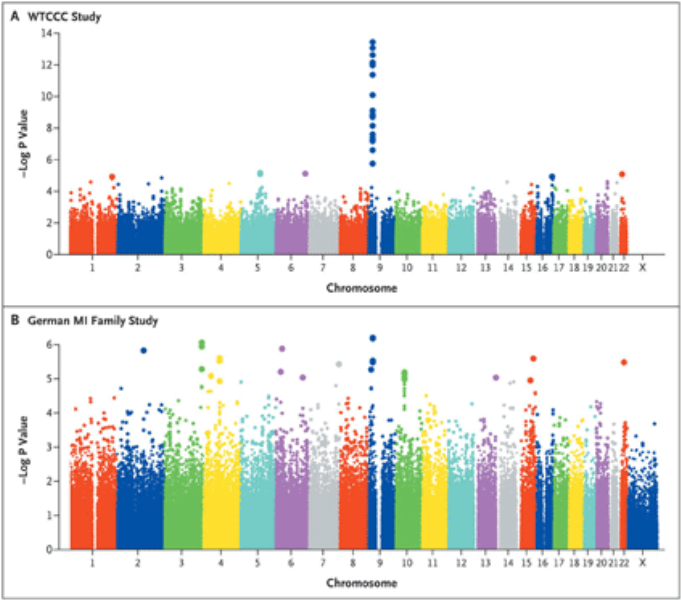
GENIUS-CHD - Organisation





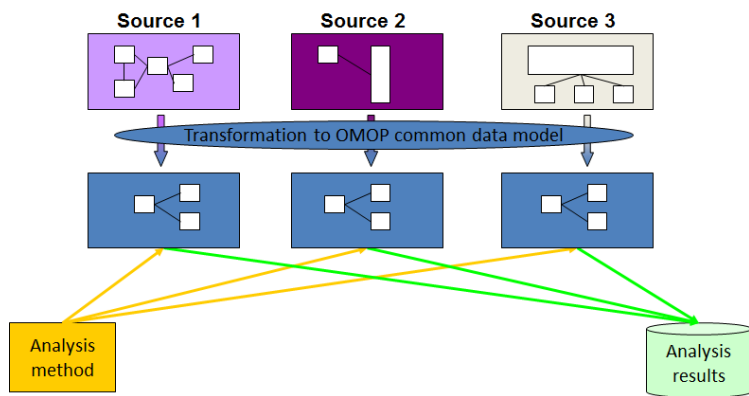
Association of Chromosome 9p21 With Subsequent Coronary Heart Disease Events

A GENIUS-CHD Study of Individual Participant Data

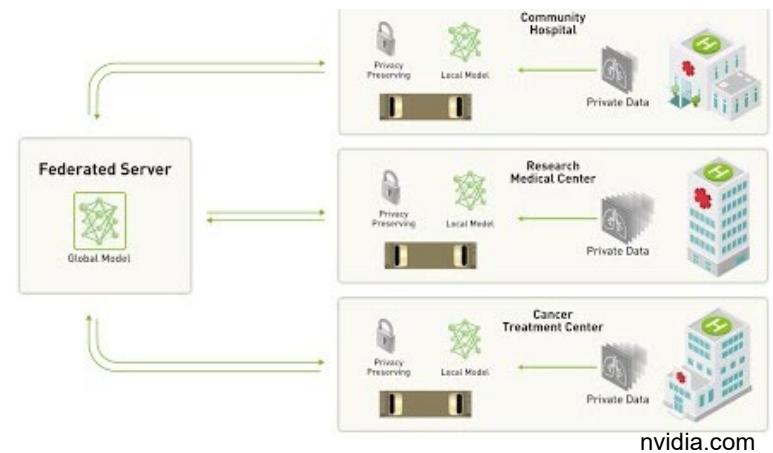


Subsequent Event	Events/Total		OR[95%CI]
MI	9355/86946		1.02 [0.99, 1.05]
Revascularization	16818/78732		1.07 [1.04, 1.09]
Heart failure	5955/67665		0.97 [0.93, 1.01]
Ischaemic stroke	1311/33591		1.01 [0.93, 1.10]
Any stroke	3133/77317		0.99 [0.94, 1.04]
Any CVD	26973/87657		1.04 [1.02, 1.07]
CHD death	6168/81064		1.00 [0.96, 1.04]
CVD death	6610/82012		0.97 [0.94, 1.01]
All cause death	14550/99363		1.00 [0.97, 1.02]

Data standardization



Federated learning: Code to Data





IQVIA  - Solutions - Real World Evidence - Evidence Networks - Select a Topic

IQVIA'S UNPARALLELED DATA ASSETS

600 Million

NON-IDENTIFIED PATIENT RECORDS.

Nationaal Groeifonds

Waarom een groeifonds?

Nederland is een goed land om in te leven. Maar we hebben te maken met uitdagingen. In de eerste plaats de gevolgen van de coronacrisis. En er speelt meer. Nederland vergrijst en het klimaat verandert. Om de welvaart op lange termijn te behouden moet de economie harder en anders groeien. Het kabinet stelt 20 miljard euro beschikbaar voor investeringen die daaraan bijdragen.



Voor investeringen in

-  Kennis-ontwikkeling
-  R&D en innovatie
-  Infrastructuur

Budget

€ 20 miljard

- Voor de komende 5 jaar
- Minimaal € 30 miljoen per project

The Randomized Registry Trial — The Next Disruptive Technology in Clinical Research?

Michael S. Lauer, M.D., and Ralph B. D'Agostino, Sr., Ph.D.

ORIGINAL ARTICLE

Outcomes 1 Year after Thrombus Aspiration for Myocardial Infarction

Bo Lagerqvist, M.D., Ph.D., Ole Fröbert, M.D., Ph.D., Göran K. Olivecrona, M.D., Ph.D., Thórarinn Gudnason, M.D., Ph.D., Michael Maeng, M.D., Ph.D., Patrik Alström, M.D., Jonas Andersson, M.D., Ph.D., Fredrik Calais, M.D., Jörg Carlsson, M.D., Ph.D., Olov Collste, M.D., Matthias Göberg, M.D., Ph.D., Peter Hårdhammar, M.D., Dan Ioanes, M.D., Anders Kallryd, M.D., Rickard Linder, M.D., Ph.D., Anders Lundin, M.D., Jacob Odenstedt, M.D., Elmir Omerovic, M.D., Ph.D., Verner Puskar, M.D., Tim Tödt, M.D., Ph.D., Eva Zelleröth, M.D., Ollie Östlund, Ph.D., and Stefan K. James, M.D., Ph.D.

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Oxygen Therapy in Suspected Acute Myocardial Infarction

Robin Hofmann, M.D., Stefan K. James, M.D., Ph.D., Tomas Jernberg, M.D., Ph.D., Bertil Lindahl, M.D., Ph.D., David Erlinge, M.D., Ph.D., Nils Witt, M.D., Ph.D., Gabriel Arefalk, M.D., Mats Frick, M.D., Ph.D., Joakim Alfredsson, M.D., Ph.D.,

The NEW ENGLAND
JOURNAL of MEDICINE

ESTABLISHED IN 1812

OCTOBER 11, 2007

VOL. 357 NO. 15

Long-Term Follow-up of the West of Scotland Coronary Prevention Study

Ian Ford, Ph.D., Heather Murray, M.Sc., Chris J. Packard, D.Sc., James Shepherd, M.D., Peter W. Macfarlane, D.Sc., and Stuart M. Cobbe, M.D., for the West of Scotland Coronary Prevention Study Group

Embedding a randomized clinical trial into an ongoing registry infrastructure: Unique opportunities for efficiency in design of the Study of Access site For Enhancement of Percutaneous Coronary Intervention for Women (SAFE-PCI for Women)

Connie N. Hess, MD, MHS,^a Sunil V. Rao, MD,^a David F. Kong, MD,^a Laura H. Aberle, BSPH,^a Kevin J. Anstrom, PhD,^a C. Michael Gibson, MD,^b Ian C. Gilchrist, MD,^c Alice K. Jacobs, MD,^d Sanjit S. Jolly, MD,^e Roxana Mehran, MD,^f John C. Messenger, MD,^g L. Kristin Newby, MD, MHS,^h Ron Waksman, MD,^h and Mitchell W. Krucoff, MD^a *Durham, NC; Boston, MA; Hershey, PA; Ontario, Canada; New York, NY; Denver, CO; and Washington, DC*



Invitational call

Creating infrastructure for cardiovascular registry-based research in the Netherlands

*a fast lane for effective
treatment of heart failure*

A joint call by the Dutch Heart Foundation and ZonMw
(Rational Pharmacotherapy Program)



Major thanks to all patients, collaborators, team, funders

F.W.Asselbergs@umcutrecht.nl