

maripoc



Suomalainen automatisoitu mariPOC-pikatesti yritysten terveysturvallisuustestauksessa

Testaus & suojaus- ja rajoitustoimet -seminaari
Terveysturvallinen meriklusteri

Dr. Janne Koskinen
Director, R&D
ArcDia Ltd
March 3, 2022

ArcDia Facts

- Privately-held
- Founded 2005
- Head count 35
- Headquarters Turku, Finland
- Solutions for decentralized rapid infection diagnostics
- Quality system ISO-13485 certified
- Ownership VC, private investors and the management



maripoc[®] Test System

Designed for decentralized testing of acute infections

Automated and continuous-feed analyser

"Sample in – result out" system

Multiple results from a single sample

Ready-to-use reagents inside test plates



Currently Available Tests CE-IVD

Respi+

For COVID-19 and
influenza like illnesses

SARS Coronavirus 2
Influenza A virus
Influenza B virus
Respiratory syncytial virus
Adenovirus
Human metapneumovirus
Parainfluenza virus 1, 2, 3
Bocavirus
Coronavirus OC 43
Streptococcus pneumoniae

Pharyn

For pharyngitis or
tonsillitis

Adenovirus
Group A Streptococci

Gastro

For acute
gastroenteritis

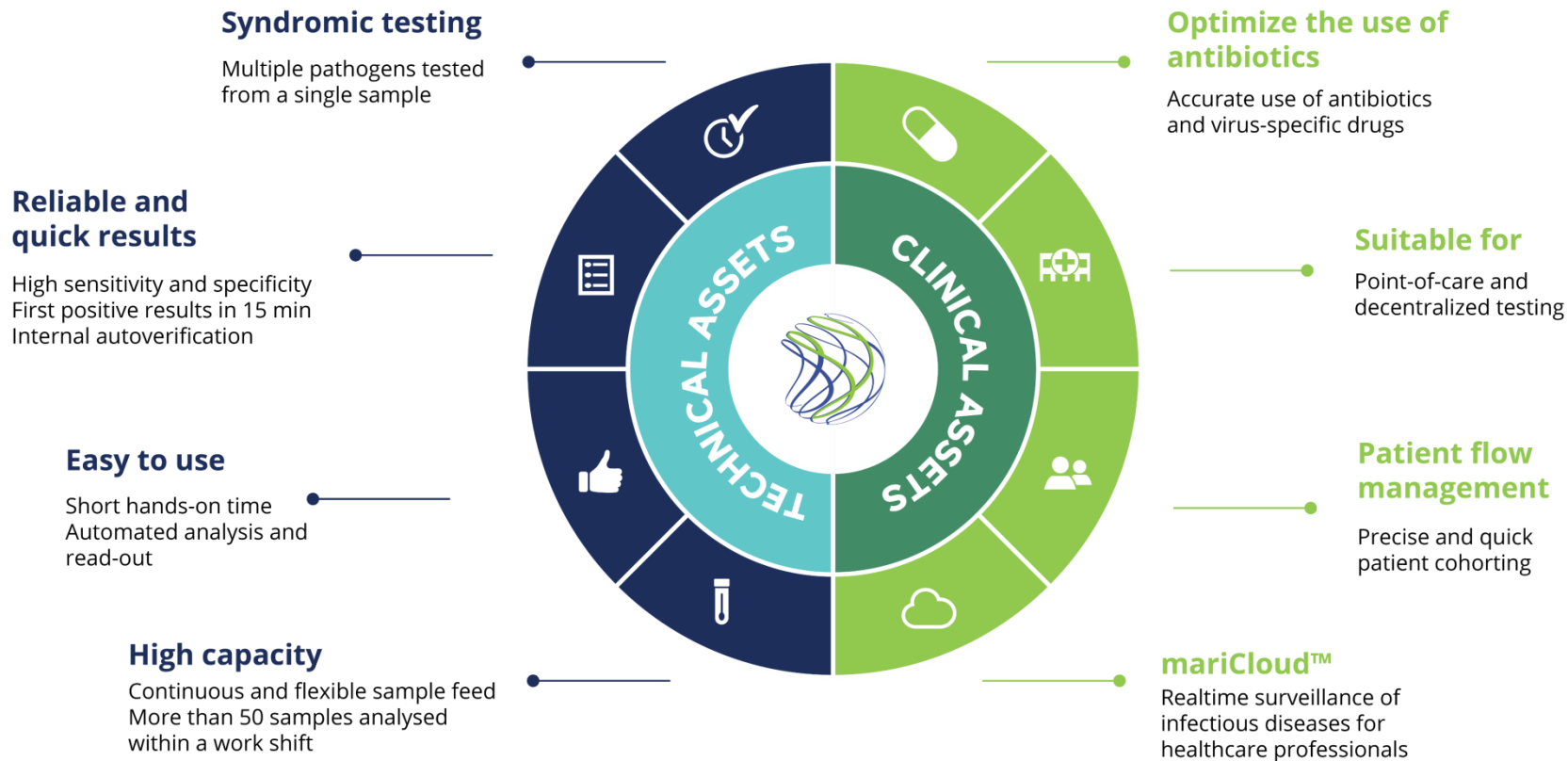
Norovirus GI
Norovirus GII.4
Adenovirus
Rotavirus
Campylobacter spp.

CDI

For *C. difficile*
infection

C. difficile GDH
Toxins A/B

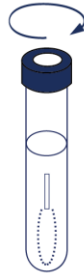
Features and Benefits



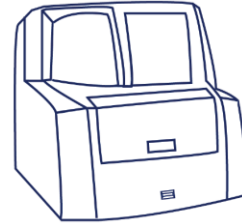
Work Flow



Cut swab into
sample tube



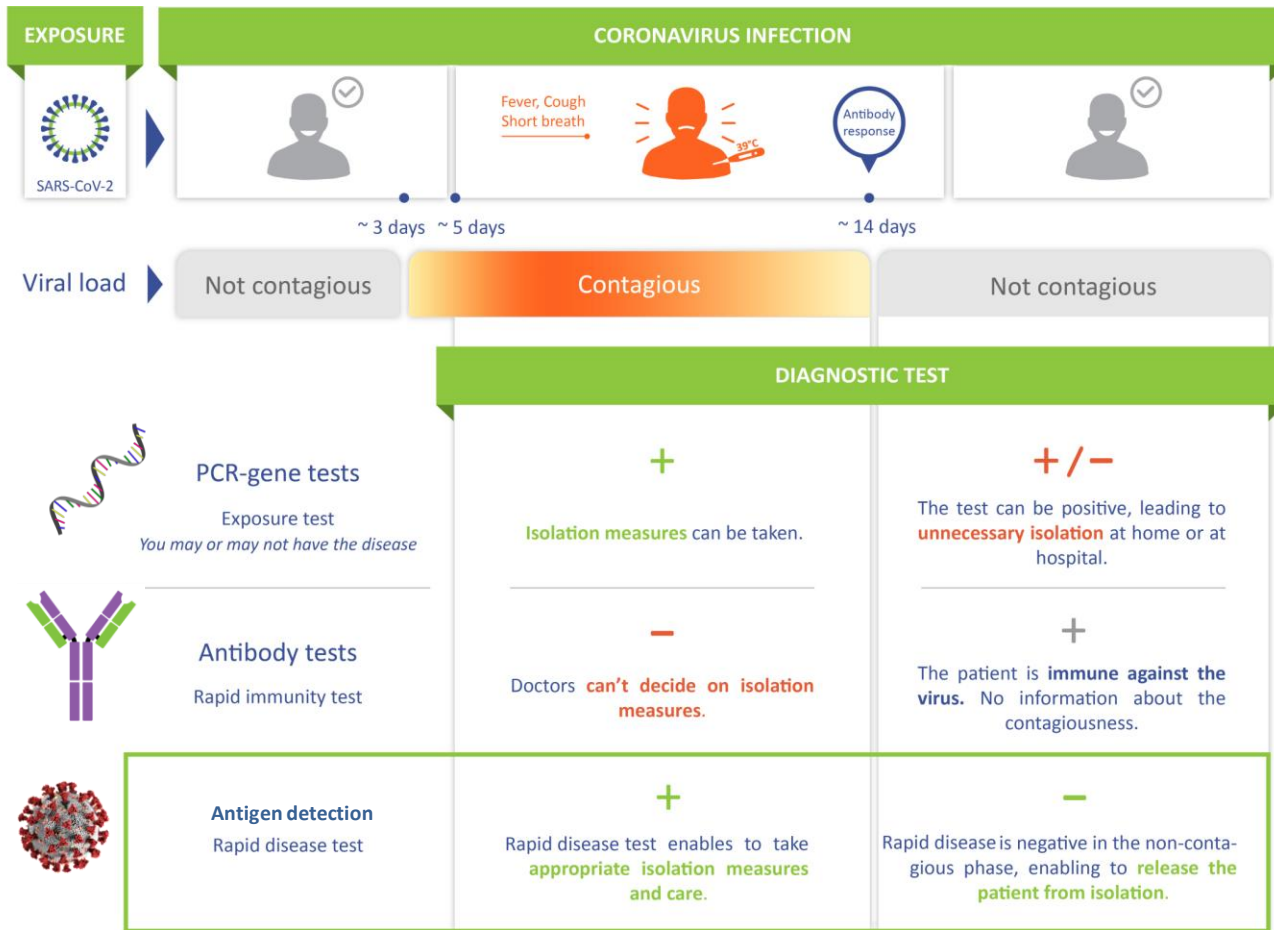
Add sample
buffer and vortex



Insert bar coded sample
tube into analyser



First results
in **15 min**

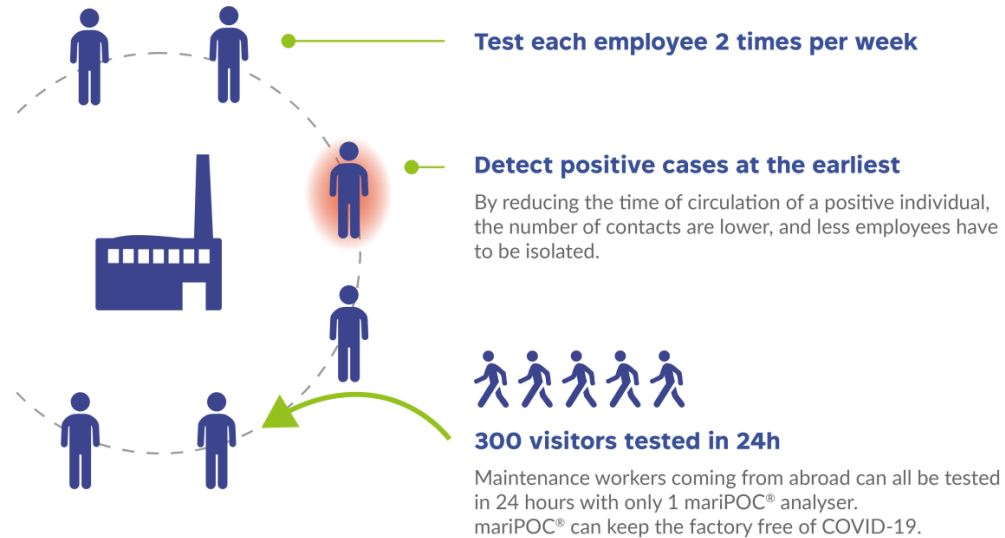


“Rapid antigen tests are **designed** to tell in a few minutes whether someone is infectious.”

Nature 2020;585:496-498.

Work safety testing

- Companies woke up during the COVID-19 pandemic to health security
- Early adopters
 - Paper industry: maintenance shut downs, construction sites
 - Bruker, Germany, a global medical device manufacturer (www.bruker.com/en.html)
 - Private health care and Lapland
- In Finland, the interpretation of legislation is an obstacle, slowdown and cost factor

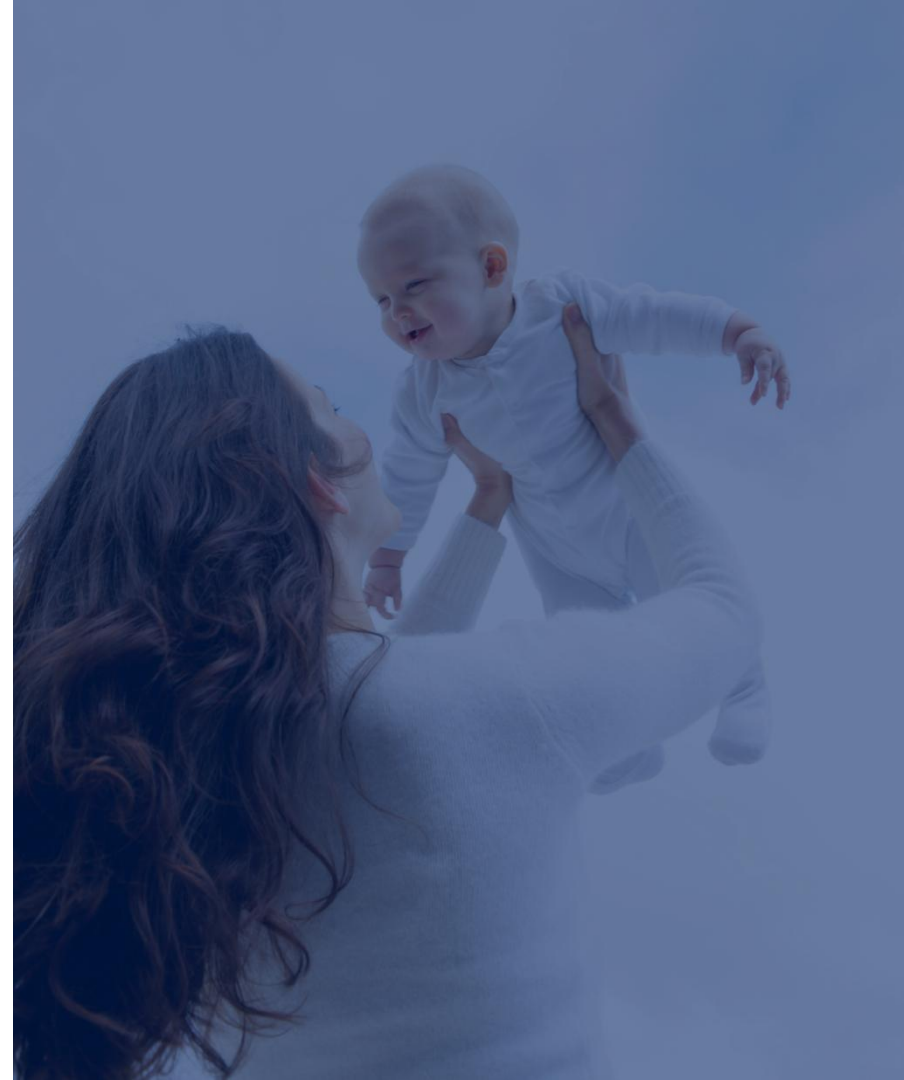


Party safety testing = work safety testing

- Recently, over 40 asymptomatic university students sampled themselves for COVID19 and other respiratory infection antigen testing before joining a party
 - 1 turned out to be positive. Few people in a hundred contacts carry a virus and are contagious without showing symptoms
 - One individual's participation in the party was ruined but testing certainly prevented many new chains of transmission
- Before a work place Christmas party, 25 asymptomatic workers were tested with the mariPOC Respi test detecting 11 pathogens
 - 1 was tested positive for common coronavirus OC43
 - One worker's party was ruined. 24 others had a safe party
 - No transmissions were observed
 - Continuity of operations on Monday was secured

Tackling regulatory hurdles

- Sampling or self-sampling do not require any permission
- Rapid official health care COVID-19 testing requires the test site to have a supervising laboratory
 - ArcDia Ltd can offer this as a service





Thank you!

ArcDia International Ltd
www.arcdia.com
janne.koskinen@arcdia.com

Find us from social media:



Detection Principle

- ArcDia's mariPOC technology is based on immunoassay of pathogen specific antigens
- The reaction takes place on latex microbeads, which are detected by two-photon excitation fluorometry (TPX technique)
- This unique technique allows sensitive immunoassays from miniature reaction volumes without separation steps

Test plate

Pathogen specific reagents are stored in the cartridge in the dry state. One cartridge is sufficient for up to 308 patient samples.

