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IMI2 Project 101005122 - DRAGON

The RapiD and SecuRe AI enhAnced DiaGnosis, Precision Medicine and Patient EmpOwerment Centered Decision Support System for Coronavirus PaNdemics

WP6 – Multifactorial analysisWP title

D6.1 Clinical nomograms

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Other contributors	UOM
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Deliverable type	Other
Dissemination level	Public

Document History

Version	Date	Description
V1	30/11/2020	First uploaded deliverable document
V2	07/12/2020	Correction of deliverable document (use of correct template)
V3	23/12/2020	Minor corrections to lay-out of deliverable to be in conformity with IMI deliverable template

Abstract

The first version of the MyPatientCheck app is accessible through the following link or by scanning the QR code provided in the annex on the last page of this document. The app is still displayed in its test environment to enable iterative cycles of testing: https://mypatientcheck.firebaseapp.com/

Summary

The first version of MyPatientCheck is aimed at providing access to valuable predictive models developed by the DRAGON consortium through a user-centered designed app. The platform is accessible through a web application on a computer and through a Progressive Web Application (PWA) directly downloadable on the user's smartphone.

Three predictive models developed by the Precision Medicine Department of Maastricht University are currently implemented. We didn't include some of the available models based on the following reasoning (https://covid19risk.ai/):

- Model MU1& MUM2: These models were not selected for implementation in the app as
    - MUM1is purposed for asymptomatic citizens and thus has no use for doctors working on triage.
    - Both models could not be validated on certain European datasets (meaning some ofthe predictive features were not predictive in the new datasets). Two such features are hospital staff (yes/no) and days since onset.
    - MUM2 was not selected for implementation in the app as some of the data-input requested for the model varies widely between datasets between hospitals in different countries.
- Models not developed by Maastricht University: We decided not to consider including any models that were not created by partners of the DRAGON Consortium in the first version of MyPatientCheck, to have the highest possible oversight into available models.

The current functionalities of MyPatientCheck are the following:

- The home screen provides information about the models including related scientific literature, validation level (e.g. TRIPOD stage), data source and current level of accuracy.
- Doctors can select the right model for a specific use case:
    - Input-data can be provided for the variables of the model;
    - Doctors can select their preferred metric for some variables;
    - Synthetic data can be created to test the model rapidly.
- After accepting the disclaimer, the user is provided with the output of the model and the related general advice. The result of the last case is displayed on the main menu to ensure that the results are not inadvertently lost
- A side menu provides access to:
    - "Help" - An FAQ with most relevant questions
    - "Disclaimer" –The current disclaimer regarding the models and the app
    - "About" –Information on the purpose of the models, the company MedC2, and the Precision Medicine Department of Maastricht University

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MyPatientCheck v1.0 Access

November 25, 2020

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https://mypatientcheck.firebaseapp.com/

History of change	

D6.1 version 1	Submitted on 30/11/2020, rejected on 06/12/2020. Reason: deliverable template not in line with standard IMI format.
D6.1 version 2	Submitted on 07/12/2020, rejected on 23/12/2020. Reason: minor corrections in template (missing logo's, some words not separated (spaces missing), unclear background behind text)
D6.1 version 3	Submitted 23/12/2020. All template-corrections addressed as requested in the rejection letter.