

Supplementary Materials

Dataset Analysis

Table S1. Dataset analysis.

| Attribute | Analysis | Value |
|-----------------------|---------------------|---|
| abdominal_pain | Description | Symptom and sign information collected at the time of notification |
| abdominal_pain | Type of Data | Name (String) |
| abdominal_pain | Example | 0 |
| abdominal_pain | Filled | 16.64% |
| abdominal_pain | Possible Values | 0 = You don't have the Attribute, |
| abdominal_pain | Possible Values | 1 = Has the Attribute, |
| abdominal_pain | Possible Values | "" = Missing |
| abdominal_pain | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| acute_renal_infirmity | Description | Information on whether the patient has acute renal failure as a comorbidity [discontinued on 26 November 2020]. |
| acute_renal_infirmity | Type of Data | Name (String) |
| acute_renal_infirmity | Example | 0 |
| acute_renal_infirmity | Filled | 60.14% |
| acute_renal_infirmity | Possible Values | 0 = You don't have the Attribute, |
| acute_renal_infirmity | Possible Values | 1 = Has the Attribute, |
| acute_renal_infirmity | Possible Values | "" = Missing |
| acute_renal_infirmity | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| analysis_1 | Description | Type of test performed |
| analysis_1 | Type of Data | Name (String) |
| analysis_1 | Example | PCR |
| analysis_1 | Filled | 91.78% |
| analysis_1 | Possible Values | PCR, ANTIGEN |
| analysis_1 | Data Quality Issues | There are records with no associated test. |
| arthralgia | Description | Symptom and sign information collected at the time of notification |
| arthralgia | Type of Data | Name (String) |
| arthralgia | Example | 0 |
| arthralgia | Filled | 60.14% |
| arthralgia | Possible Values | 0 = You don't have the Attribute, |
| arthralgia | Possible Values | 1 = Has the Attribute, |
| arthralgia | Possible Values | "" = Missing |
| arthralgia | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| asthma | Description | Information on whether the patient has asthma as a comorbidity. |
| asthma | Type of Data | Name (String) |
| asthma | Example | 0 |
| asthma | Filled | 60.14% |
| asthma | Possible Values | 0 = You don't have the Attribute, |
| asthma | Possible Values | 1 = Has the Attribute, |
| asthma | Possible Values | "" = Missing |

| | | |
|---------------------------------|---------------------|---|
| asthma | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| auscultation_anomalous | Description | Symptom and sign information collected at the time of notification [discontinued] |
| auscultation_anomalous | Type of Data | Name (String) |
| auscultation_anomalous | Example | 0 |
| auscultation_anomalous | Filled | 60.14% |
| auscultation_anomalous | Possible Values | 0 = You don't have the Attribute, |
| auscultation_anomalous | Possible Values | 1 = Has the Attribute, |
| auscultation_anomalous | Possible Values | "" = Missing |
| auscultation_anomalous | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| cardiac_infirmity | Description | Information on whether the patient has heart failure as a comorbidity [discontinued]. |
| cardiac_infirmity | Type of Data | Name (String) |
| cardiac_infirmity | Example | 0 |
| cardiac_infirmity | Filled | 60.14% |
| cardiac_infirmity | Possible Values | 0 = You don't have the Attribute, |
| cardiac_infirmity | Possible Values | 1 = Has the Attribute, |
| cardiac_infirmity | Possible Values | "" = Missing |
| cardiac_infirmity | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| chest_pain | Description | Symptom and sign information collected at the time of notification |
| chest_pain | Type of Data | Name (String) |
| chest_pain | Example | 0 |
| chest_pain | Filled | 16.98% |
| chest_pain | Possible Values | 0 = You don't have the Attribute, |
| chest_pain | Possible Values | 1 = Has the Attribute, |
| chest_pain | Possible Values | "" = Missing |
| chest_pain | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| chronic_hematologic_disease | Description | Information on whether the patient has chronic hematological diseases such as comorbidity. |
| chronic_hematologic_disease | Type of Data | Name (String) |
| chronic_hematologic_disease | Example | 0 |
| chronic_hematologic_disease | Filled | 60.14% |
| chronic_hematologic_disease | Possible Values | 0 = You don't have the Attribute, |
| chronic_hematologic_disease | Possible Values | 1 = Has the Attribute, |
| chronic_hematologic_disease | Possible Values | "" = Missing |
| chronic_hematologic_disease | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the attribute. |
| chronic_neurological_deficiency | Description | Information on whether the patient has chronic neurological deficiency as a comorbidity [discontinued on 26 November 2020]. |
| chronic_neurological_deficiency | Type of Data | Name (String) |
| chronic_neurological_deficiency | Example | 0 |
| chronic_neurological_deficiency | Filled | 60.14% |
| chronic_neurological_deficiency | Possible Values | 0 = You don't have the Attribute, |
| chronic_neurological_deficiency | Possible Values | 1 = Has the Attribute, |
| chronic_neurological_deficiency | Possible Values | "" = Missing |

| | | |
|---------------------------------|---------------------|---|
| chronic_neurological_deficiency | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| chronic_pulmonary_disease | Description | Information on whether the patient has any chronic lung disease as a comorbidity. |
| chronic_pulmonary_disease | Type of Data | Name (String) |
| chronic_pulmonary_disease | Example | 0 |
| chronic_pulmonary_disease | Filled | 60.14% |
| chronic_pulmonary_disease | Possible Values | 0 = You don't have the Attribute, |
| chronic_pulmonary_disease | Possible Values | 1 = Has the Attribute, |
| chronic_pulmonary_disease | Possible Values | "" = Missing |
| chronic_pulmonary_disease | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| chronic_renal_disease | Description | Information on whether the patient has chronic kidney disease as a comorbidity. |
| chronic_renal_disease | Type of Data | Name (String) |
| chronic_renal_disease | Example | 0 |
| chronic_renal_disease | Filled | 60.14% |
| chronic_renal_disease | Possible Values | 0 = You don't have the Attribute, |
| chronic_renal_disease | Possible Values | 1 = Has the Attribute, |
| chronic_renal_disease | Possible Values | "" = Missing |
| chronic_renal_disease | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| code_municipality_address_user | Description | Code for the municipality of Portugal that corresponds to the address of the confirmed case, according to the National Registry of Users. |
| code_municipality_address_user | Type of Data | Number (Integer) |
| code_municipality_address_user | Example | 3109 |
| code_municipality_address_user | Filled | 97.63% |
| code_municipality_address_user | Possible Values | Code of municipalities |
| code_municipality_address_user | Data Quality Issues | There is a registration without a county code associated with the user's address. |
| code_municipality_occurrence | Description | Code for the municipality of Portugal where the confirmed case is residing |
| code_municipality_occurrence | Type of Data | Name (String) |
| code_municipality_occurrence | Example | 3108 |
| code_municipality_occurrence | Filled | 28.11% |
| code_municipality_occurrence | Possible Values | Code of municipalities |
| code_municipality_occurrence | Data Quality Issues | There are records without a county code of occurrence of the associated user. |
| coma | Description | Symptom and sign information collected at the time of notification [discontinued] |
| coma | Type of Data | Name (String) |
| coma | Example | 0 |
| coma | Filled | 60.14% |
| coma | Possible Values | 0 = You don't have the Attribute, |
| coma | Possible Values | 1 = Has the Attribute, |
| coma | Possible Values | "" = Missing |

| | | |
|--------------------------|---------------------|--|
| coma | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| confirmation_rule | Description | Form identifying the confirmed case of SARS-CoV-2/COVID-19 |
| confirmation_rule | Type of Data | Name (String) |
| confirmation_rule | Example | Clinical Notification |
| confirmation_rule | Filled | 1 |
| confirmation_rule | Possible Values | Case/Clinical Notification/Laboratory Notification |
| confirmation_rule | Data Quality Issues | No data quality problems identified |
| consumption_coagulopathy | Description | Information on whether the patient has consumption coagulopathy as a comorbidity [discontinued]. |
| consumption_coagulopathy | Type of Data | Name (String) |
| consumption_coagulopathy | Example | 0 |
| consumption_coagulopathy | Filled | 60.14% |
| consumption_coagulopathy | Possible Values | 0 = You don't have the Attribute, |
| consumption_coagulopathy | Possible Values | 1 = Has the Attribute, |
| consumption_coagulopathy | Possible Values | "" = Missing |
| consumption_coagulopathy | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| convulsions | Description | Symptom and sign information collected at the time of notification |
| convulsions | Type of Data | Name (String) |
| convulsions | Example | 0 |
| convulsions | Filled | 60.14% |
| convulsions | Possible Values | 0 = You don't have the Attribute, |
| convulsions | Possible Values | 1 = Has the Attribute, |
| convulsions | Possible Values | "" = Missing |
| convulsions | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| coryza | Description | Symptom and sign information collected at the time of notification |
| coryza | Type of Data | Name (String) |
| coryza | Example | 0 |
| coryza | Filled | 20.72% |
| coryza | Possible Values | 0 = You don't have the Attribute, |
| coryza | Possible Values | 1 = Has the Attribute, |
| coryza | Possible Values | "" = Missing |
| coryza | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| date_confirmed | Description | Date the person was identified as a confirmed case of infection by SARS-CoV-2/COVID-19. |
| date_confirmed | Type of Data | String |
| date_confirmed | Example | 44222 |
| date_confirmed | Filled | 1 |
| date_confirmed | Possible Values | Dates between 02/03/2020 to 28/02/2021 |
| date_confirmed | Data Quality Issues | No data quality problems identified |
| date_obit | Description | Date of the patient dying with SARS-CoV-2/COVID-19. |
| date_obit | Type of Data | Data (date) |
| date_obit | Example | 44482 |

| | | |
|---|---------------------|---|
| date_obit | Filled | 1.98% |
| date_obit | Possible Values | Dates between 02/03/2020 and 08/03/2021 |
| date_obit | Data Quality Issues | Events without date |
| date_of_start_of_symptoms | Description | Symptom onset date |
| date_of_start_of_symptoms | Type of Data | Date |
| date_of_start_of_symptoms | Example | 44214 |
| date_of_start_of_symptoms | Filled | 34.76% |
| date_of_start_of_symptoms | Possible Values | Dates between 02/03/2020 to 02/27/2021 |
| date_of_start_of_symptoms | Data Quality Issues | There are records with no associated values. Replace the blank values with "NA". |
| description_municipality_correspondence | Description | Name of the municipality of Portugal that corresponds to the address of the confirmed case, according to the National Registry of Users |
| description_municipality_correspondence | Type of Data | Name (String) |
| description_municipality_correspondence | Example | Braga |
| description_municipality_correspondence | Filled | 97.26% |
| description_municipality_correspondence | Possible Values | List of municipalities in Portugal |
| description_municipality_correspondence | Data Quality Issues | There are records without a description of the county associated with the user's address. |
| description_municipality_occurrence | Description | Name of the municipality of Portugal where the confirmed case is residing |
| description_municipality_occurrence | Type of Data | String (Name) |
| description_municipality_occurrence | Example | Guimarães |
| description_municipality_occurrence | Filled | 28.11% |
| description_municipality_occurrence | Possible Values | List of municipalities in Portugal |
| description_municipality_occurrence | Data Quality Issues | There are records without a description of the county associated with the user's address. |
| diabetes | Description | Information on whether the patient has a known history of Diabetes insipidus or Diabetes Mellitus type 1.2 or gestational |
| diabetes | Type of Data | Name (String) |
| diabetes | Example | 0 |
| diabetes | Filled | 60.14% |
| diabetes | Possible Values | 0 = You don't have the Attribute, |
| diabetes | Possible Values | 1 = Has the Attribute, |
| diabetes | Possible Values | "" = Missing |
| diabetes | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| diarrhea | Description | Symptom and sign information collected at the time of notification |
| diarrhea | Type of Data | Name (String) |

| | | |
|------------------------------|---------------------|--|
| diarrhea | Example | 0 |
| diarrhea | Filled | 60.14% |
| diarrhea | Possible Values | 0 = You don't have the Attribute, |
| diarrhea | Possible Values | 1 = Has the Attribute, |
| diarrhea | Possible Values | "" = Missing |
| diarrhea | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| disease_presentation | Description | Symptom and sign information collected at the time of notification |
| disease_presentation | Type of Data | Name (String) |
| disease_presentation | Example | Asymptomatic |
| disease_presentation | Filled | 42.64% |
| disease_presentation | Possible Values | Asymptomatic/Symptomatic |
| disease_presentation | Data Quality Issues | There is a record without Description for the presentation of the disease in the user. |
| dry_or_productive_cough | Description | Symptom and sign information collected at the time of notification |
| dry_or_productive_cough | Type of Data | Name (String) |
| dry_or_productive_cough | Example | 0 |
| dry_or_productive_cough | Filled | 28.09% |
| dry_or_productive_cough | Possible Values | 0 = You don't have the Attribute, |
| dry_or_productive_cough | Possible Values | 1 = Has the Attribute, |
| dry_or_productive_cough | Possible Values | "" = Missing |
| dry_or_productive_cough | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| during_incubation_period | Attribute | fora_de_portugal |
| during_incubation_period | Description | If the user was outside Portugal in the 14 days prior to the notification date. |
| during_incubation_period | Type of Data | Name (String) |
| during_incubation_period | Example | 0 |
| during_incubation_period | Filled | 26.13% |
| during_incubation_period | Possible Values | 0 = You don't have the Attribute, |
| during_incubation_period | Possible Values | 1 = Has the Attribute, |
| during_incubation_period | Possible Values | "" = Missing |
| during_incubation_period | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| dyspnea | Description | Symptom and sign information collected at the time of notification |
| dyspnea | Type of Data | Name (String) |
| dyspnea | Example | 0 |
| dyspnea | Filled | 19.36% |
| dyspnea | Possible Values | 0 = You don't have the Attribute, |
| dyspnea | Possible Values | 1 = Has the Attribute, |
| dyspnea | Possible Values | "" = Missing |
| dyspnea | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| general_weakness_or_asthenia | Description | Symptom and sign information collected at the time of notification |
| general_weakness_or_asthenia | Type of Data | Name (String) |
| general_weakness_or_asthenia | Example | 0 |

| | | |
|------------------------------|---------------------|--|
| general_weakness_or_asthenia | Filled | 18.82% |
| general_weakness_or_asthenia | Possible Values | 0 = You don't have the Attribute, |
| general_weakness_or_asthenia | Possible Values | 1 = Has the Attribute, |
| general_weakness_or_asthenia | Possible Values | "" = Missing |
| general_weakness_or_asthenia | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| headache | Description | Symptom and sign information collected at the time of notification |
| headache | Type of Data | Name (String) |
| headache | Example | 0 |
| headache | Filled | 23.15% |
| headache | Possible Values | 0 = You don't have the Attribute, |
| headache | Possible Values | 1 = Has the Attribute, |
| headache | Possible Values | "" = Missing |
| headache | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| history_of_fever_or_chills | Description | Symptom and sign information collected at the time of notification |
| history_of_fever_or_chills | Type of Data | Name (String) |
| history_of_fever_or_chills | Example | 0 |
| history_of_fever_or_chills | Filled | 25.70% |
| history_of_fever_or_chills | Possible Values | 0 = You don't have the Attribute, |
| history_of_fever_or_chills | Possible Values | 1 = Has the Attribute, |
| history_of_fever_or_chills | Possible Values | "" = Missing |
| history_of_fever_or_chills | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| hiv_other_immunodeficiencies | Description | Information about whether the patient has HIV or other immunodeficiencies such as comorbidity. |
| hiv_other_immunodeficiencies | Type of Data | Name (String) |
| hiv_other_immunodeficiencies | Example | 0 |
| hiv_other_immunodeficiencies | Filled | 60.14% |
| hiv_other_immunodeficiencies | Possible Values | 0 = You don't have the Attribute, |
| hiv_other_immunodeficiencies | Possible Values | 1 = Has the Attribute, |
| hiv_other_immunodeficiencies | Possible Values | "" = Missing |
| hiv_other_immunodeficiencies | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| irritability_confusion | Description | Symptom and sign information collected at the time of notification [discontinued] |
| irritability_confusion | Type of Data | Name (String) |
| irritability_confusion | Example | 0 |
| irritability_confusion | Filled | 60.14% |
| irritability_confusion | Possible Values | 0 = You don't have the Attribute, |
| irritability_confusion | Possible Values | 1 = Has the Attribute, |
| irritability_confusion | Possible Values | "" = Missing |
| irritability_confusion | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| liver_pathology | Description | Information on whether the patient has any liver disease as a comorbidity. |
| liver_pathology | Type of Data | Name (String) |
| liver_pathology | Example | 0 |
| liver_pathology | Filled | 60.14% |

| | | |
|---------------------------------------|---------------------|--|
| liver_pathology | Possible Values | 0 = You don't have the Attribute, |
| liver_pathology | Possible Values | 1 = Has the Attribute, |
| liver_pathology | Possible Values | "" = Missing |
| liver_pathology | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| lung_x-ray_with_alterations | Description | Symptom and sign information collected at the time of notification [discontinued] |
| lung_x-ray_with_alterations | Type of Data | Name (String) |
| lung_x-ray_with_alterations | Example | 0 |
| lung_x-ray_with_alterations | Filled | 60.14% |
| lung_x-ray_with_alterations | Possible Values | 0 = You don't have the Attribute, |
| lung_x-ray_with_alterations | Possible Values | 1 = Has the Attribute, |
| lung_x-ray_with_alterations | Possible Values | "" = Missing |
| lung_x-ray_with_alterations | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| myalgias | Description | Symptom and sign information collected at the time of notification |
| myalgias | Type of Data | Name (String) |
| myalgias | Example | 0 |
| myalgias | Filled | 23.64% |
| myalgias | Possible Values | 0 = You don't have the Attribute, |
| myalgias | Possible Values | 1 = Has the Attribute, |
| myalgias | Possible Values | "" = Missing |
| myalgias | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| nausea_vomiting | Description | Symptom and sign information collected at the time of notification |
| nausea_vomiting | Type of Data | Name (String) |
| nausea_vomiting | Example | 0 |
| nausea_vomiting | Filled | 60.14% |
| nausea_vomiting | Possible Values | 0 = You don't have the Attribute, |
| nausea_vomiting | Possible Values | 1 = Has the Attribute, |
| nausea_vomiting | Possible Values | "" = Missing |
| nausea_vomiting | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| neoplasia | Description | Information on whether the patient has neoplasia as a comorbidity |
| neoplasia | Type of Data | Name (String) |
| neoplasia | Example | 0 |
| neoplasia | Filled | 60.14% |
| neoplasia | Possible Values | 0 = You don't have the Attribute, |
| neoplasia | Possible Values | 1 = Has the Attribute, |
| neoplasia | Possible Values | "" = Missing |
| neoplasia | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| neurological_or_neuromuscular_disease | Description | Information on whether the patient has chronic neurological or neuromuscular disorders such as comorbidity [discontinued]. |
| neurological_or_neuromuscular_disease | Type of Data | Name (String) |
| neurological_or_neuromuscular_disease | Example | 0 |

| | | |
|---------------------------------------|---------------------|---|
| neurological_or_neuromuscular_disease | Filled | 60.14% |
| neurological_or_neuromuscular_disease | Possible Values | 0 = You don't have the Attribute, |
| neurological_or_neuromuscular_disease | Possible Values | 1 = Has the Attribute, |
| neurological_or_neuromuscular_disease | Possible Values | "" = Missing |
| neurological_or_neuromuscular_disease | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| odynophagia | Description | Symptom and sign information collected at the time of notification |
| odynophagia | Type of Data | Name (String) |
| odynophagia | Example | 0 |
| odynophagia | Filled | 19.99% |
| odynophagia | Possible Values | 0 = You don't have the Attribute, |
| odynophagia | Possible Values | 1 = Has the Attribute, |
| odynophagia | Possible Values | "" = Missing |
| odynophagia | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| parent_nationality | Description | Nationality of the confirmed case. |
| parent_nationality | Type of Data | Name (String) |
| parent_nationality | Example | Portugal |
| parent_nationality | Filled | 98.81% |
| parent_nationality | Possible Values | Nationality of the user of the confirmed case. |
| parent_nationality | Data Quality Issues | There are records without associated user nationality. |
| patient_gender | Description | Gender of confirmed case |
| patient_gender | Type of Data | Character |
| patient_gender | Example | F |
| patient_gender | Filled | 99.97% |
| patient_gender | Possible Values | F/M |
| patient_gender | Data Quality Issues | There are records with no associated gender. |
| pneumonia | Description | Symptom and sign information collected at the time of notification |
| pneumonia | Type of Data | Name (String) |
| pneumonia | Example | 0 |
| pneumonia | Filled | 7.76% |
| pneumonia | Possible Values | 0 = You don't have the Attribute, |
| pneumonia | Possible Values | 1 = Has the Attribute, |
| pneumonia | Possible Values | "" = Missing |
| pneumonia | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| tachycardia | Description | Symptom and sign information collected at the time of notification [discontinued] |
| tachycardia | Type of Data | Name (String) |
| tachycardia | Example | 0 |
| tachycardia | Filled | 60.14% |
| tachycardia | Possible Values | 0 = You don't have the Attribute, |
| tachycardia | Possible Values | 1 = Has the Attribute, |
| tachycardia | Possible Values | "" = Missing |

| | | |
|-------------------------------|---------------------|---|
| tachycardia | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| the_patient_has_comorbidities | Description | Information on whether the patient has comorbidities at the date of notification |
| the_patient_has_comorbidities | Type of Data | Name (String) |
| the_patient_has_comorbidities | Example | 0 |
| the_patient_has_comorbidities | Filled | 25.07% |
| the_patient_has_comorbidities | Possible Values | 0 = You don't have the Attribute, |
| the_patient_has_comorbidities | Possible Values | 1 = Has the Attribute, |
| the_patient_has_comorbidities | Possible Values | "" = Missing |
| the_patient_has_comorbidities | Data Quality Issues | Replace values "" = Missing, to 0 = You do not have the Attribute. |
| user_age_at_validation_date | Description | Age of the confirmed case at the date of notification. |
| user_age_at_validation_date | Type of Data | Numeric (Integer) |
| user_age_at_validation_date | Example | 44 |
| user_age_at_validation_date | Filled | 91.82% |
| user_age_at_validation_date | Possible Values | Values between 0 and 120 years. |
| user_age_at_validation_date | Data Quality Issues | There are records with no associated age. |
| virus_variant | Description | Most common variants of COVID-19 disease |
| virus_variant | Type of Data | Nome (String) |
| virus_variant | Example | Variant501V2 |
| virus_variant | Filled | 0.19% |
| virus_variant | Possible Values | Variant501V2, VariantP1, VariantSGeneDelete, VariantVOC_202012_01, VARIANT_OTHER |
| virus_variant | Data Quality Issues | Some records do not have an associated variant. |
| virus_variant_other | Description | Remaining variants of COVID-19 disease |
| virus_variant_other | Type of Data | Name (String) |
| virus_variant_other | Example | B.1 |
| virus_variant_other | Filled | 0.1% |
| virus_variant_other | Possible Values | A.21, P.2, B.1.2, entre outros |
| virus_variant_other | Data Quality Issues | There are no data quality problems to present, since it is a complementary column and is linked to "virus_variant". |
| which_country | Description | Identifies the country where the confirmed case was during the incubation period. |
| which_country | Type of Data | Name (String) |
| which_country | Example | France |
| which_country | Filled | 0.57% |
| which_country | Possible Values | ISO 3166 list of countries |
| which_country | Data Quality Issues | Replace blank values with "NA" - Not applicable |

Classification Results

| | | |
|---|-------------------------|-------------------|
| s: | t: | sm: |
| 1 = {All comorbidities, symptoms, age and gender} | 1 = Logistic Regression | 1 = Oversampling |
| 2 = {All comorbidities, age and gender} | 2 = Naive Bayes | 2 = Undersampling |
| 3 = {Risk comorbidities, age and gender} | 3 = Decision Tree | |
| 4 = {All comorbidities, symptoms and age} | 4 = SVM | |
| 5 = {All comorbidities and symptoms} | 5 = Deep Learning | |
| 6 = {All comorbidities} | | |
| 7 = {All comorbidities and age} | | |
| 8 = {All comorbidities and gender} | | |

Table S2. Patient's Outcome results.

| Scenario (s) | Classification Algorithms (t) | Sampling Methods | | | | | |
|--------------|-------------------------------|------------------|-------------|-------------|---------------|-------------|-------------|
| | | Oversampling | | | Undersampling | | |
| | | Accuracy | Sensitivity | Specificity | Accuracy | Sensitivity | Specificity |
| s = 1 | t = 1 | 88.82% | 85.80% | 91.81% | 87.08% | 77.56% | 96.59% |
| | t = 2 | 62.11% | 96.19% | 28.44% | 62.05% | 95.84% | 28.24% |
| | t = 3 | 90.99% | 86.79% | 95.14% | 87.62% | 82.81% | 92.43% |
| | t = 5 | 89.32% | 84.41% | 94.18% | 89.57% | 84.24% | 94.89% |
| s = 2 | t = 1 | 88.25% | 83.46% | 92.99% | 88.17% | 84.04% | 92.30% |
| | t = 2 | 58.60% | 96.66% | 21.00% | 59.05% | 96.52% | 21.56% |
| | t = 3 | 88.94% | 84.43% | 93.39% | 87.52% | 81.72% | 93.25% |
| | t = 5 | 88.35% | 83.38% | 93.26% | 88.00% | 97.18% | 88.82% |
| s = 3 | t = 1 | 87.63% | 79.25% | 95.92% | 88.00% | 83.77% | 92.23% |
| | t = 2 | 57.79% | 96.93% | 19.12% | 60.72% | 97.20% | 24.27% |
| | t = 3 | 88.91% | 84.60% | 93.16% | 88.27% | 84.11% | 92.43% |
| | t = 5 | 88.17% | 81.44% | 94.82% | 88.41% | 85.40% | 91.41% |
| s = 4 | t = 1 | 88.65% | 85.90% | 91.39% | 88.34% | 83.42% | 93.25% |
| | t = 2 | 62.14% | 96.27% | 28.43% | 62.15% | 96.18% | 28.15% |
| | t = 3 | 90.67% | 86.08% | 95.20% | 88.31% | 82.26% | 94.34% |
| | t = 5 | 89.19% | 85.12% | 93.21% | 88.54% | 82.88% | 94.21% |
| s = 5 | t = 1 | 65.50% | 92.86% | 38.47% | 87.66% | 82.19% | 93.12% |
| | t = 2 | 61.95% | 96.12% | 28.14% | 64.54% | 97.27% | 31.83% |
| | t = 3 | 66.58% | 93.81% | 39.67% | 66.18% | 97.07% | 35.31% |
| | t = 5 | 66.07% | 94.69% | 38.40% | 71.39% | 94.61% | 48.19% |
| s = 6 | t = 1 | 58.65% | 96.75% | 21.00% | 58.64% | 96.70% | 21.03% |
| | t = 2 | 58.62% | 96.75% | 20.96% | 58.17% | 98.30% | 18.06% |
| | t = 3 | 58.72% | 96.80% | 21.08% | 58.17% | 98.77% | 17.59% |
| | t = 5 | 58.66% | 96.80% | 20.98% | 60.42% | 96.11% | 24.74% |
| s = 7 | t = 1 | 88.13% | 84.80% | 91.41% | 88.14% | 79.20% | 97.01% |
| | t = 2 | 58.72% | 96.68% | 21.21% | 61.13% | 97.41% | 24.88% |
| | t = 3 | 88.13% | 84.80% | 91.41% | 87.76% | 83.90% | 91.61% |
| | t = 5 | 58.68% | 96.95% | 21.16% | 87.69% | 87.18% | 88.21% |
| s = 8 | t = 1 | 58.65% | 96.76% | 20.99% | 60.86% | 97.00% | 24.74% |
| | t = 2 | 58.56% | 96.67% | 20.91% | 58.23% | 98.43% | 18.06% |
| | t = 3 | 58.93% | 96.35% | 21.95% | 57.76% | 97.95% | 17.59% |
| | t = 5 | 58.60% | 96.71% | 20.95% | 60.55% | 96.38% | 24.74% |