Public Health England

NHS

Protecting and improving the nation's health

11 March 2020

Dear Colleague

Re: COVID-19 Hospitalisation in England Surveillance System (CHESS) – daily reporting

As the COVID-19 situation continues to evolve, with rising numbers of cases in the UK and hospitals across the country beginning to care for patients with confirmed infection, it is essential for the national NHS and PHE response teams to work from accurate real-time data on hospitalised cases of COVID-19.

PHE has established a COVID-19 Hospitalisation in England Surveillance System (CHESS), adapted from the UK Severe Influenza Surveillance System (USISS) which many of you may be familiar with. Following discussion with NHS England and NHS Improvement and the Chief Medical Officer, the reporting frequency has been increased from weekly to **daily** in view of the escalating COVID-19 situation and change in testing policy.

This letter describes the aims of CHESS, and the ask for all NHS trusts.

Aims of CHESS
CHESS will collect epidemiological data (demographics, risk factors, clinical information on severity, and outcome) on COVID-19 infection in persons requiring hospitalisation and ICU/HDU. This will help monitor the impact of severe COVID-19 infection on the population and health services, and provide real-time data to forecast and estimate disease burden and health services utilisation.

Reporting requirements for all NHS trusts

1. All intensive care and high dependency units in the trust should report:
    - daily individual patient-level data on every ICU/HDU admission with COVID-19
    - daily aggregate data on ICU/HDU admissions with acute respiratory infection[1]
    - daily aggregate data on ICU/HDU admissions with acute respiratory infection who have been tested for COVID-19.

2. All trusts should report:
    - daily aggregate data on all hospitalised cases of COVID-19
    - daily aggregate data on all acute respiratory infection admissions.

3. If you are a nationally commissioned Severe Respiratory Failure (ECMO) centre, please continue to report all ECMO admissions through your current USISS system, which has been adapted for COVID-19, but do this on a daily basis.

Please note that a sentinel network of USISS trusts will be asked weekly to report individual patient-level data on all hospitalised cases of COVID-19 to CHESS; if you are one of those trusts, you will be contacted separately.

[1] Trusts should report acute respiratory infections, including influenza-like illness and community-acquired pneumonia, regardless of known or suspected causative pathogen and clinical features.

Trusts should start reporting to CHESS from Thursday 12 March 2020 and daily data should be submitted by 09:00 hours every day, including weekends, for the previous day (00.00 to 23.59 hours).

The data specification for individual and aggregate-level data is appended. A user guide will be circulated to trusts.

Access to the CHESS web tool
The web tool for CHESS will be available at: https://chess.phe.nhs.uk

Hospital trusts should nominate a named user who will be given a login for access.

Please can you send the named contact for your trust to the PHE COVID-19 surveillance cell inbox: covid19surv@phe.gov.uk, as soon as possible, so that they can be set up as a CHESS user by the start date.

Minimising reporting burden
All trusts should continue to report aggregate cases of influenza admitted to ICU/HDU via the weekly mandatory ICU/HDU flu collection. However, while we are in this critical phase of COVID-19 response, sentinel USISS trusts are not required to report additional influenza data to USISS and will receive an email to confirm this.

ECMO centres do not need to report to CHESS for new ECMO COVID-19 cases as these will be picked up in their USISS submissions.

Legal mandate for data collection
NHS Digital has approved CHESS and confirmed it is a mandatory collection. The legal basis for the collection is Section 251 (SI 1438 Control of Healthcare Information Regulations 2002) along with Regulation 3 of the Health Service (Control of Patient Information) Regulations 2002, which allows PHE to collect and process patient confidential data without explicit patient consent.

Dissemination
Data from CHESS will be reported to NHS England and PHE SitRep on a daily basis and included in a weekly CHESS surveillance report that will be circulated weekly to all trusts.

For any queries, please email: covid19surv@phe.gov.uk.

Thank you for your continued support.

Kind regards,

Professor Nick Phin, PHE Incident Director, National Infection Service

Appendix

Data specification – individual patient-level data (ICU and HDU COVID-19 admissions only)

Personal identifiers

A. Patient name
B. DOB
C. Sex
D. Hospital number
E. NHS number
F. First half of postcode of residence
G. Ethnicity – ONS classifications

Laboratory details

A. Estimated date of onset of symptoms
B. Swab/specimen date
C. Type of specimen: nasal/throat swab, nasopharyngeal/nasal aspirate, sputum, tracheal aspirate, broncho-alveolar lavage, other, unknown
D. Laboratory test date
E. Result of laboratory tests (select all that apply): COVID-19, A/H1N1pdm2009, A/H3N2, B, A/non-subtyped, A/unsubtypeable, RSV, other (specify)

Hospitalisation details

A. Name of hospital
B. Was admission flu/RSV related/COVID-19 related?
C. Admitted from: home, nursing Home, residential home, temp accommodation, acute trust hospital, private hospital, other UK hospital, non-UK hospital, penal establishment, unknown, other
D. If hospital: name
E. Date of admission to hospital
F. Was the patient admitted to ICU?
G. Date of admission to ICU
H. Complications: viral pneumonia, secondary bacterial pneumonia, ARDS, unknown, other co-infections, other (specify)
I. If secondary bacterial pneumonia, organism and date
J. If co-infection, specify organism and test date
K. What respiratory support did the patient require? (select all that apply): none / oxygen via cannulae or mask / high flow nasal oxygen, non-invasive ventilation, invasive mechanical ventilation / ECMO
L. If mechanical ventilation, duration (days)

Antiviral treatment

A. Received specific anti-COVID-19 treatment? (Y/N)

Risk factors

A. Chronic respiratory disease, excluding asthma (specify)
B. Asthma requiring medication (specify)
C. Chronic/congenital heart disease (specify)
D. Hypertension
E. Immunosuppression due to disease or treatment (specify)
E. Chronic neurological disease (specify)
F. Diabetes requiring insulin, oral hypoglycaemic drugs or diet controlled (specify type)
G. Chronic renal disease (specify)

H. Chronic liver disease (specify)
I. Pregnancy (specify gestation on admission)
J. Obesity (clinically apparent/BMI)
K. Travel in 14 days (before disease onset) (Y- specify, N - not known)
L. Prematurity (<37 weeks' GA)
M. Works as a healthcare worker
N. Contact with confirmed COVID-19 case in the 14 days before onset (Y/N/unknown)
O. Other

Outcome

A. Outcome: discharged/transferred(specify)/death
B. If discharged, date of discharge
C. If admitted to ITU, date of leaving ITU
D. If transferred, date of transfer
E. If transferred, destination
F. If died, date of death
G. If died, cause of death: COVID-19 main cause, COVID-19 underlying cause, not COVID-19 related, influenza main cause, influenza underlying cause, RSV main cause, RSV underlying cause, other, unknown

Data specification – aggregate data collection (data by trust)

	<1	1-4	5-14	15-24	25-44	45-54	55-64	65-74	75-84	85+	Total
All hospital admissions with COVID-19											
All hospital admissions with acute respiratory infection											
ICU admissions with acute respiratory infection											
ICU admissions with acute respiratory infection who have been tested for COVID-19											