« INCIDENTAL COVID - 19 » - A NEW DEFINITION FOR IN-PATIENTS

Version 1 anglais du 12/01/2022

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Explanatory memorandum: The definition of a 'COVID-19 patient' has, until now included both asymptomatic and symptomatic patients. Of these, two categories were essential for hospital management, (1) patients admitted to conventional hospitalization (CH) and (2) those admitted to an intensive care unit (ICU), although the boundary between the two may have varied over time and location. The monitoring of CH and ICU beds was important because these categories have an impact on the function of the hospital, are likely to lead to a capacity overflow leading to medical triage and excess mortality on the one hand, and to have an impact on the management of non-COVID-19 patients on the other hand. This impact is itself a source of additional morbidity and mortality.

Until now, the epidemiological follow-up of CH patients has considered that all patients with a positive COVID-19 test were hospitalized because of COVID-19 disease as the predominant cause of hospitalization. For ICU patients, they were classified as admitted with or without COVID-19 lung disease and, if not, no further information was collected. This simplified view was justified by the relatively low incidence of COVID-19 disease, making it unlikely that COVID-19 disease would co-exist with another cause of admission to CH or ICU. The situation is changing with the Omicron variant which has both extreme infectiousness making its incidence very high (>2% of the population at present) but less severity, reducing the likelihood of admission to CH or ICU due to an attenuated virulence and a high proportion of the population with immunity acquired through vaccination and/or previous COVID-19 disease. In children, the incidence has risen sharply but these patients remain in the vast majority of cases a- or pauci-symptomatic even though this population is poorly or not vaccinated depending on age.

It is therefore becoming necessary to separate patients hospitalized in CH or ICU for a COVID-19 disease (i.e. linked to SARS CoV-2 infection) whatever its manifestation from those hospitalized for a cause independent of this infection but presenting a positive COVID-19 test (including nosocomial COVID-19). This seems to be crucial for inpatient management, not outpatient management.

Semantics: The term 'coincidental COVID-19' ('that happens or seems to happen by chance in an unexpected way') has been used so far but does not seem to be appropriate for this situation as chance and unexpectedness refer to severe COVID - 19 disease as well. The terms 'associated COVID-19', 'intercurrent COVID-19' are neutral and do not qualify the clinical significance of SARS CoV-2 infection. The term 'incidental COVID-19' seems more appropriate to the situation in the sense that the presence of COVID-19, symptomatic or not, is incidental to the diagnosis that leads to hospitalization but also to the patient's evolution. Indeed, the incidental character established at admission may evolve during hospitalization due to the possible progression of the COVID-19 disease itself, or its unfavourable interaction with the patient's pre-existing comorbidities or the non-COVID-19 cause that led to hospitalization. The aim of this new definition is to be applicable to a patient without or with co-morbidities, in medicine as well as in surgery, in geriatrics as well as in paediatrics. It should allow for the assessment of the proportion of COVID-19 patients for whom SARS-CoV2 is not responsible or partially responsible for the admission to



CH or ICU, both for admissions and for the stock of inpatients. Errors or discrepancies in interpretation by the physician, based on this simple and perhaps simplistic definition, are inevitable but this pragmatic approach is a lesser evil than the absence of information. However, the effectiveness of this new definition will need to be evaluated and changed if necessary.

Definition: A patient is classified as an 'incidental COVID –19' on admission to CH or ICU when the following two conditions are met:

- 1) A cause (or causes) other than COVID -19 is (are) the main reason(s) for admission of the patient to CH or ICU;
- 2) The presence of SARS-CoV-2 infection is not considered by the physician to be part of the patient's clinical worsening for admission to CH or ICU.

Incidental COVID-19 status may be revoked during CH or ICU hospitalization.

Text validated on 12 January 2022

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