

DECISION-AID (21/01/2021)
INTENSIFIED HOME-BASED CARE FOR COVID-19 WORRISOME ADULT PATIENTS
IN CASE OF HOSPITAL SATURATION

Online (potentially more recent) version available [HERE](#)

Confirmed or highly suspected COVID-19 adult patients
with at least one sign of pneumonia¹ AND
SpO₂ ≤94%² at room air or respiratory rate ≥25/minute

Red flags



**IMMEDIATE
HOSPITAL
ADMISSION**

- **Oxygen saturation at rest:**
 - SpO₂ < 90%
 - SpO₂ < 88% if chronic hypoxaemic lung disease
 - SpO₂ ≤92% with an oxygen flow max 4L/min
- **Respiratory Rate** ≥30/min at rest or < 12/min
- **Haemodynamic impairment:** systolic hypotension < 100 mmHg OR tachycardia > 120/min OR bradycardia < 45/min
- **Altered consciousness**
- Clinical signs of **dehydration**³ and/or **hypovolemia**⁴
- **No improvement** of health status after 72 hours of intensified home-based management



If no Red flags: EVALUATION

Risk factors for severe COVID-19⁵

- > 65 years⁶
- BMI ≥ 30
- Diabetes type 1 and 2
- Chronic heart condition⁷
- Chronic lung disease
- Chronic kidney insufficiency (stage 3a to 5)
- Chronic liver diseases
- Malignant hemopathy or active cancer
- Severe immunosuppression⁸
- Neurological conditions⁹ or major psychiatric disorders requiring anti-psychotics
- Homozygous sickle cell disease¹⁰

• Recent laboratory analysis

• Patient autonomy¹¹, training¹², preferences¹³

- Informal caregivers 24/7
- Multi-disciplinary team of health care providers¹⁴
- Personal Protection Equipment for formal/informal caregivers
- Reliable pulse oximeter
- Quickly available O₂
- Consignment of all information in the (electronical) medical record

**Information & Concertation : patient, caregivers, healthcare team
(including hospital reference specialist for COVID-19)**

INTENSIFIED HOME-CARE

Frequent (tele)monitoring (at least 2-3 times a day) of vital signs¹⁵ either done by the patient, the caregivers and/or the health care professionals

Thromboprophylaxis

- Encourage mobilization & hydration in all patients
- Enoxaparine SC 50 UI kg/ day, during 14 days:
 - To be considered according to clinical judgement in all bedridden patients
 - Recommended in bedridden patients with risk factors for venous thromboembolism¹⁶
 - Not to be added to chronic anticoagulation treatment

Oxygen therapy

- Nasal cannula¹⁷
- Start if SpO₂ ≤94%
- Target SpO₂ >92% with oxygen flow max 4L/min
- If chronic hypoxaemic lung disease, target SpO₂ 88-92%
- Start at 2L/min, control after 30 min
- If necessary, increase the dosage stepwise by of 1L/min
- Respect safety measures
- Free the unused material

Corticosteroids

- Systematic corticosteroids not recommended in patients without hypoxaemia requiring supplemental oxygen
- In patients with hypoxaemia requiring supplemental O₂:
 - Oral **Dexamethasone** 6mg/day during 10 days
 - OR
 - **Methylprednisolone** 32mg/day during 10 days

Others

- Paracetamol
NSAID (if no contra-indication)
- Antibiotics only if bacterial co-infection¹⁸ and according to the BAPCOC recommendations
- PPI to be considered if NSAID or corticosteroids when risks factors of GI bleeding¹⁹

! New evidence on COVID-19 is accumulating rapidly.
The validity of this decision-aid tool (21/01/2021) will be re-assessed regularly.

For the most recent version see [here](#).

All footnotes are described in the following page.

¹ **Pneumonia signs:** fever, cough, dyspnoea or fast breathing (RR > 20/min).

² **SpO₂** must be measured for at least 1-2 minutes. The level of SpO₂ prompting a hospital admission must be interpreted along with the clinical judgement of the patient's health.

³ **Clinical signs of dehydration:** weight loss ≥ 5% (severe if > 10%), positive skin fold, thirst, dry mouth, possible confusion and decrease of urine flow.

⁴ **Clinical signs of hypovolemia:** arterial hypotension, tachycardia, cold and marbled extremities and decrease of urine flow.

⁵ The presence of one of the **risk factors** is a warning sign which should trigger, according to your clinical judgement, a twice more frequent home-based monitoring or, if not possible, an indication for a hospital admission (except when in contradiction with the advanced care planning).

Be aware that each additional age year after 65 years and each accumulation of risk factors induces a higher risk.

⁶ For patients over **75 years old** that are residents in an institution, please refer to the therapeutic protocol for COVID-19: in French <http://docs.toubipbip.be/docs/d574edb2e8fce1a0.pdf>.

⁷ **Chronic heart conditions:** heart failure, coronary disease, cardiomyopathy and pulmonary hypertension.

⁸ **Severe immunosuppression:** ongoing chemotherapy, severe inherited immunodeficiency, transplant... See CBIP in French (<https://www.cbip.be/fr/chapters/12?frag=8900094>) or in Dutch (<https://www.bcfi.be/nl/chapters/12?frag=8900094>).

⁹ **Neurological conditions:** dementia, Down syndrome, cerebral palsy...

¹⁰ **For other rare diseases**, although there is no current evidence, be confident to your clinical judgement.

¹¹ **Patient autonomy** for food, hydration, monitoring, ability to call for help, therapy.

¹² **Patient and/or his/her caregiver training** to use appropriately oxygen therapy and pulse oximeter, or to identify red flags in order to react quickly and call the nearest hospital. A telephone number that can be reached 24/7 can be useful.

¹³ **Importance of information and consultation** with the patient, in particular on the level of intensity of care that the patient wants to receive, including admission to hospital in the event of an urgent medical situation (red flags).

¹⁴ This **team** can include a coordinating GP, nurses, physiotherapists and a reference hospital team, sharing information by the same communication channels, information; such a team allows integrated care with the consultation of all parties including the patient and his/her caregivers. Therapeutic options should be duly discussed with the patients.

¹⁵ **Monitoring** can be carried out by the patient, relatives or a health professional (general practitioner, nurse, physiotherapist etc.) BUT the medical decision remains the responsibility of the general practitioner. Telemonitoring appears feasible in COVID-19 patients even though there is currently no evidence on the (cost)effectiveness of telemonitoring for COVID-19 patients cared for at home.

¹⁶ **Risk of venous thromboembolism:** known thrombophilia; personal or familial history of VTE ; obesity (BMI>30); heart failure; respiratory failure; age >70; active cancer; major surgery in the last 3 months.

¹⁷ Preferably give **oxygen** through nasal cannula. A classical oxygen mask can be used in case of a congested nose.

¹⁸ If **bacterial pneumonia** is suspected or confirmed in patients with COVID-19, the appropriateness of **antibiotics** depends on the local resistance profiles and patients allergy: in Belgium, the Belgian Antibiotic Coordination Commission (BAPCOC) recommends high-dose amoxicillin or amoxicillin clavulanate.

¹⁹ Risk factors for **GI bleeding** : combined use of NSAIDs and corticosteroids / NSAIDs or corticosteroids used jointly with anticoagulants or antiplatelet therapy / History of GI ulcer, bleeding, or perforation / >65 years and/or serious comorbidities.

More information on COVID-19: https://covid-19.sciensano.be/sites/default/files/Covid19/COVID-19_fact_sheet_ENG.pdf

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