Cardiopulmonary Resuscitation (CPR) Long-term Care: Guidance for Persons Under Investigation (PUI) & Confirmed COVID-19

Site:
• Environment
  ○ Long-term care (LTC)
  ○ Island-Wide
	Scope:
	• Audience: RNs, LPNs, Allied Health, Managers, Directors of Care, Physicians, Nurse Practitioners
	• Exceptions:
	  ○ *Residents with tracheostomy and/or mechanical ventilators, refer to separate guideline*

1.0 GENERAL PRINCIPLES: CPR DURING COVID-19 in LONG-TERM CARE

- **REDUCE NEED FOR CPR, REVIEW MOST & SERIOUS ILLNESS CONVERSATIONS:**
  - Consideration for resident's goals of care should be made long before the need for CPR. Goals of care discussions should be prompted in all residents, but in particular residents with a low likelihood of surviving critical illness and high burden of chronic illness.
  - The Most Responsible Provider (MRP) will engage with resident or the substitute decision maker and/or family to review, and if requested, updated the resident's Medical Orders for Scope of Treatment (MOST).
  - The discussion between MRP and resident should reflect principles highlighted in *Serious Illness Conversation* *and clearly* present the risk and benefit of CPR in the event of the resident being a person under investigation (PUI) or COVID-19 Positive. The chosen designation should reflect a resident's expressed wish for CPR and be medically appropriate.

- **CPR is not to be attempted on any resident, PUI or COVID-19 positive or negative, who has suffered an unwitnessed cardiac arrest.**

- **SIGNAGE**: Appropriate precaution signage as per Infection Prevention and Control, should be posted clearly on the door for each suspected or confirmed COVID-19 patient. (Droplet + Contact Precautions Signage). MOST Status should be readily accessible to the nurse to mitigate delay to initiate CPR.

- **STAFF & RESIDENT SAFETY**: The need to don appropriate PPE will delay CPR in patients with suspected or confirmed COVID-19. Review of the processes involved, along with training and practice, will minimize these delays. Utilize observer to guide donning and in particular, doffing of PPE. Close the door to the resident room before performing CPR. Move other residents away from the area, e.g., hallways and transportation routes out of the facility.

- **REDUCE NUMBER OF STAFF EXPOSURE TO CODE BLUE ROOM**: Keep to essential roles (staff) only to decrease or eliminate the potential exposure to staff. When emergency medical services (EMS) (i.e. paramedics) arrive, staff should remove themselves from the room.

- **SHARED ROOM & LIMITING EXPOSURE TO OTHER RESIDENTS:** For residents who are in shared rooms, staff should ensure the other residents are moved out of the room in the event of a CODE BLUE.

2.0 Need to know:

- Cardiopulmonary Resuscitation (CPR) is considered to be aerosolizing generating medical procedure (AGMP), requiring health care professionals (HCPs) to utilize appropriate personal protective equipment (i.e. airborne precautions including use of an N-95 respirator). Prior to the COVID-19 pandemic, LTC did not routinely require N-95 fit testing given the limited need for N95 masks in these settings. Given concerns around supplies and priority settings (ICU/Acute care), LTC developed guidelines to mitigate AGMPs in LTC settings, including review of residents MOST status.

- In LTC, CPR for residents is typically associated with low survival rates (CADTH, 2014) with a European report finding a 30-day survival rate of 1.5% (Pape et al., 2020).

- Specific to CPR in COVID-19, there is no available literature in LTC. Furthermore, the limited literature regarding the efficacy of CPR during in-hospital cardiac arrest (IHCA) of a COVID-19 infected patient demonstrates a poor overall prognosis. A retrospective case study in New York found of 31 COVID-19 patients who experienced IHCA, despite an initial survival rate of 42%, had 100% mortality (Sheth et al., 2020). Another study out of Wuhan, found of 136 COVID-19 patients with IHCA, the 30-day survival rate was 2.9% (Shao et al., 2020). It is likely the prognosis would be worse in LTC given environmental and system challenges which include: (1) confidence and competence in performing clinical skill by front line staff, including learning a new process for dawning and doffing PPE in a stressful scenario; (2) reduced frequency and exposure to performing CPR in LTC setting; (3) lack of specialized staff support on site; (4) lack of equipment (i.e. no AED on site).

- This guideline outlines actions for HCPs regarding CPR in the LTC settings in context of the COVID-19 pandemic, taking into account established CPR policies. This guideline **only** applies to those residents who are considered PUI or confirmed COVID-19 positive. Non-COVID-19 residents would receive CPR as per typical CPR guidelines in LTC (I.e. Bystander CPR).

3.0 No-CPR Policy in LTC (10.3.9P)

- *All Long-term Care Homes in VIHA shall have a "No-CPR" policy, where CPR will not be initiated in the event of cardiopulmonary arrest unless explicitly desired by the resident or their substitute decision maker.*

- *The wishes of each resident shall be respected and supported in all cases, and basic CPR will be initiated in appropriate circumstances in which such treatment has been requested.*
- *A "No-CPR" policy must not be interpreted as a less aggressive care plan for diagnostics or therapeutic interventions.*

4.0 CPR: Guidance re: Procedure

1. **Step One: Determine COVID-19 Status**
    a. **Person under Investigation (PUI) or COVID-19 Positive**: Follow procedure as below
    b. **NON-COVID-19:** Follow usual basic life support and CPR practice.

2. **Step Two: Don Droplet & Contact PPE**
    a. Surgical mask, gown, gloves & eye protection

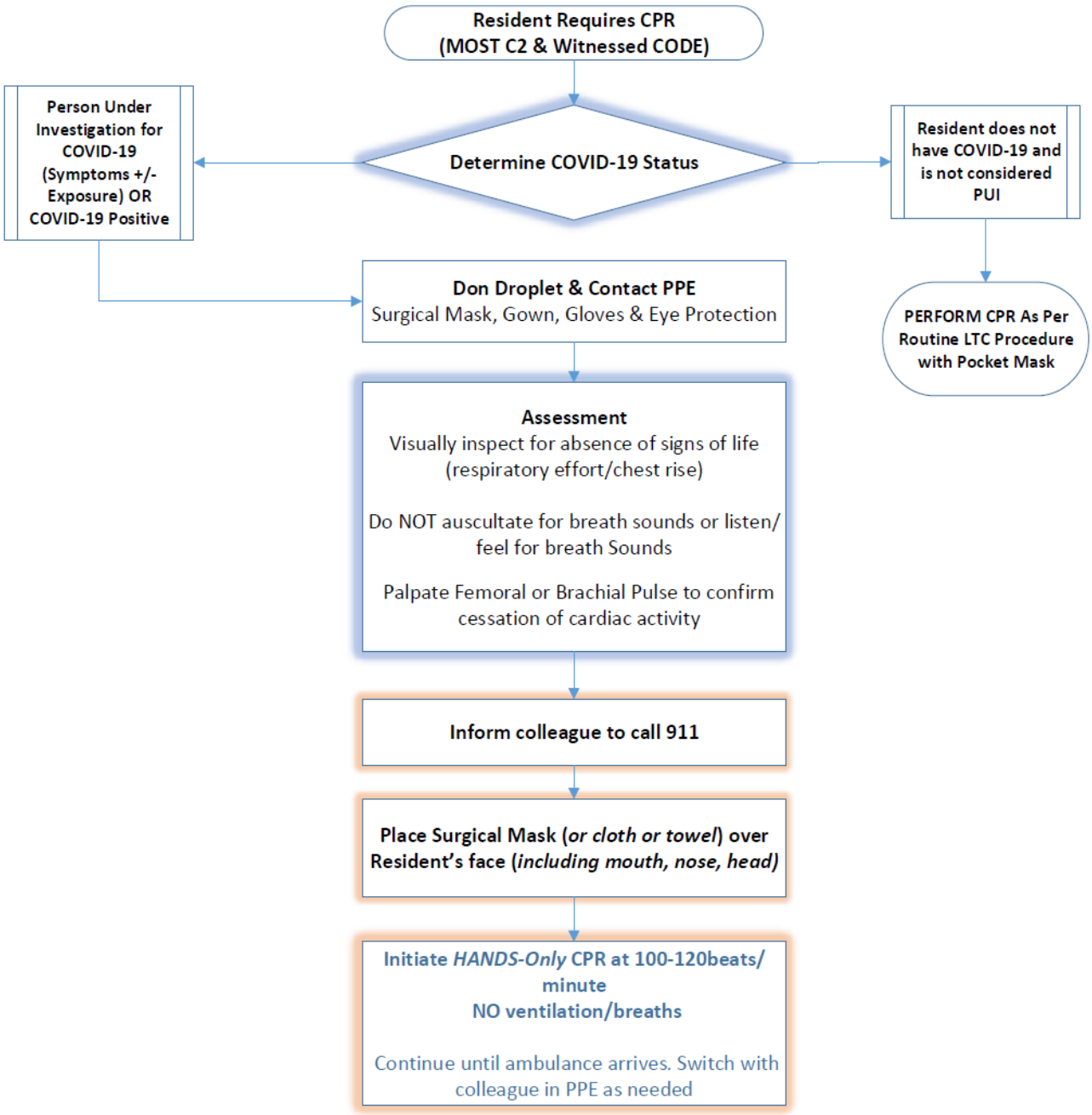
3. **Step Three: Assessment**
    a. Recognize cardiac arrest by looking for the absence of signs of life and the absence of normal breathing.
        i. Feel for a FEMORAL/BRACHIAL pulse
        ii. DO NOT listen or feel for breathing by placing your ear and cheek close to the patient's mouth.
    b. CPR should NOT be initiated in those with unwitnessed cardiac arrest.

4. **Step Four: Call for ambulance**
    a. Have colleague call 911, make aware of COVID-19/PUI status of unit and resident

5. **Step Five:**
    a. Apply surgical mask over resident's mouth (leaving O2 in place if being used) and ensure mask is pressed firmly over bridge of nose
        i. If no mask, place cloth or towel over the patient, including the patient's head.

6. **Step Six: Initiate CPR**
    a. Initiate Hands-only compression CPR and continue until EMS (i.e. ambulance) arrives.
    b. Limit the number of staff in the room, ensuring all staff are wearing appropriate PPE.

LTC: Cardiopulmonary Arrest (CPR) in COVID-19 Positive and Persons Under Investigation (PUI)



Persons/Groups Consulted:
LTC Medical Director, Intensivist, Medical Ethicist, Risk Management, Occupational Health & Safety, Medical Health Officer, LTC COVID-19 Practice Approval Council LTC & AL Operational Leadership

Resources

(e.g., Definitions, Related Island Health Standards, References)

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7. Island Health (2019). Policy 10.3.0P: Cardiopulmonary resuscitations (CPR) in Long-term Care
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10. Pape, M et al. (2017). Low survival after out-of-hospital cardiac arrest in nursing homes despite early initiation of bystander cardiopulmonary resuscitation-a nationwide study. *European Heart Journal*, Volume *38* (1)
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12. Shao, F et al. (2020). In-hospital cardiac arrest outcomes among patients with COVID-19 pneumonia in Wuhan, China. *Resuscitation, 151*, p.18-23.