Clinical Team Resource Pack for Covid Assessment Hubs (CAHs):

The real and immediate challenge is providing a consistently high standard of patient care in the CAHs during this pandemic. Covid-19 is a novel and potentially lethal disease, particularly in older patients and those with multi-morbidity. There is an incomplete and rapidly evolving evidence base. The CAHs are an entirely new model of delivering care. The CAHs require substantial infection prevention and control learning. Lastly, and of key importance, is the unique 'human factors' challenge of establishing an effective and dynamic CAH team of clinicians, GPs and nurses, supported by an administration team. The CAH front line team require the expertise of the GP community, HSE, public health, infectious disease specialists and academia, to support, enhance and inform our evolving clinical response to this pandemic.

Section A. Clinical Toolbox

Section B: Infection Prevention & Control Toolbox

Section A: Clinical Toolbox

The suggestions and resources in this 'toolbox' are shared as a resource to doctors and nurses working in the CAH. We hope that clinicians find these of value in supporting all clinical staff to work safely and deliver high quality care to our patients, in the novel clinical setting.

There are many different learning styles, and we each have our preferred method. We anticipate that the suggestions below may find application and resonate for personal and group learning, particularly in the CAHs.

1. **Formal group training**: This was undertaken in many venues around the country. It is anticipated that such training is unlikely to be repeated on a similar scale.
2. **Informal 'team building' & shared learning**: This may resonate in enhancing team working, and embedding good clinical and IPC practices, in the CAH.
3. **Covid-19 and CAH: an overview**
4. **Webinar**
5. **E-learning on HSE land**

1. Formal group training: Group training was undertaken in many different venues across Ireland. The content, duration and style of training reflected the varied resource availability and clinical requirements. It is not planned to continue such training. However, given sufficient local demand and clinical need, similar training events may be arranged at regional level.

2. Informal 'team building' and shared learning with clinical scenarios: The four clinical scenarios outlined below were developed for the formal group training to reflect the many and varied faces of people presenting for assessment in the CAHs. These are ideally suited to small group learning. We anticipate that clinicians in the CAHs may use these scenarios to stimulate vigorous discussion. Please amend these scenarios to discuss more complex patient care issues.

Section B: Clinical Scenarios

Scenario 1

Background: Patient is a 56-year-old male with dry cough and fever for 4 days. Fever coming and going. Seems to respond to paracetamol. Some breathlessness in past 2 days. Has contacted his GP who has suggested he attend the CAH.

Clinical data - INEWS.

- Respiratory rate – 20
- Temp 38.2
- Pulse oximetry – 95% (in room air)
- Pulse – 90
- Systolic blood pressure – 120mmHg
- Mental state – lucid

INEWS = 2

Further history:

- Breathless mainly on exertion. Okay at rest.
- Has been able to self-care and get about the house without major difficulty.
- Greatly fatigued
- Past medical history – hypertension; hyperlipidaemia; osteoarthritis
- Current medications – amlodipine; atorvastatin; naproxen; omeprazole

Social history:

- Lives with his wife (aged 52) and son (aged 24). They are asymptomatic
- Ex-smoker – gave up 5 years ago

Suggested clinical decision – home with robust safety netting

Further instructions/advice:

- To self-isolate in the home
- Wife and son to restrict movements or self isolate if they become symptomatic
- May continue current medications except take paracetamol rather than naproxen
- To phone GP/OOH if becomes more breathless especially at rest; unable to get around because of breathlessness; fever consistently above 38deg; feels he is getting worse.

Scenario 2

Background: 63-year-old male. Dry cough and fever for 5 days. Breathless at rest. Referred to CAH.

Clinical data - INEWS

- Respiratory rate – 24
- Temp 38.5
- Pulse oximetry – 90% (in room air)
- Pulse – 112
- Systolic blood pressure – 110mmHg
- Mental state – lucid

INEWS = 6

Further history:

- Very fatigued, struggling with self-care, not eating or sleeping
- Hypertension, hyperlipidaemia, obesity (BMI 32), type 2 diabetes
- Meds – Lisinopril; atorvastatin; metformin

Suggested clinical decision: – hospital admission?

- O2 to be administered?
- Ambulance transfer?
- Anticipate patient resistance to hospital admission?

Further instructions/advice:

- You have Covid 19 and are quite ill with same
- Need to go to hospital immediately – risk of further deterioration and respiratory failure; may not need ventilation;
- no visitors will be allowed

Scenario 3

Background: 58 year old male with dry cough and fever for past 10 days. GP arranged for him to have Covid testing, has tested positive and is self-isolating. About 3 hours ago started to have moderately severe chest pain and difficulty breathing. Now feels weak, clammy and slightly nauseous.

Clinical data - INEWS

- Respiratory rate – 24
- Temp 37.2
- Pulse oximetry – 96% (in room air)
- Pulse – 120
- Systolic blood pressure – 152 mmHg
- Mental state – lucid, obviously anxious

INEWS = 3

Current symptoms:

- Moderately severe central chest pain. Crushing in character. Not radiating. No exacerbating or relieving factors.
- Breathless
- Nauseated but has not vomited

Past medical history:

- Hypertension
- Hyperlipidaemia

Current medications:

- Lisinopril;
- Amlodipine
- Atorvastatin

Clinical diagnosis & initial management in CAH:

- Hospital admission - ?MI
- Advise hospital of Covid positive status
- Initial management pending ambulance transfer: medications? Oxygen?
- Management of potential cardiac arrest in CAH?

Further instructions/advice:

- You may be having a heart attack.
- You need to go to hospital immediately and by ambulance
- This needs standard management for heart attack, anti-platelet medicines, Oxygen, analgesia etc.
    - This may mean cardiac catheterisation.
- You will be isolated in hospital. No visitors.

Scenario 4

Background: Patient is a 31-year-old male who is Covid positive. He has a cough and fever. He sounds breathless over the phone. His GP referred him to CAH.

Lives with partner (aged 29y) and 4y old son, both asymptomatic. He quit smoking 2y ago.

Clinical data - INEWS

- Respiratory rate – 24
- Temp 37.5
- Pulse oximetry – 97% (in room air)
- Pulse – 108
- Systolic blood pressure – 140mmHg
- Mental state – alert, anxious

INEWS = 3

Current symptoms:

- Breathless, mainly when he thinks about what might happen if he goes to hospital.
- Very fatigued
- Struggling with self care
- Note eating and sleeping badly

Past medical history:

- Generalised anxiety disorder
- BMI 32

Current medications:

- Sertraline (antidepressant)

Clinical diagnosis & initial management in CAH:

- What is likely diagnosis? (Anxiety with hyperventilation)
- Home

Further instructions/advice:

- What do you advise about his diagnosis (GP follow up, counselling etc)
- What is the management plan (Home, with GP follow up)
- What about re-presentation if symptoms worsen? (To revert to own GP)