COVID-19
Homeless Sector Plan

Test-Triage-Cohort-Care
Protocol modified in response to limited testing capacity

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1: Rationale and Key Components:

On 16th March 2020 the Government announced that **all adults who meet clinical criteria for influenza vaccination and those aged over 70 years of age should stay at home without contact with others for a twelve-week period**.

- Our research has demonstrated that 41% of homeless people fulfil this criterion, principally due to high levels of chronic illness.
- Rough sleepers reliant on Day Centres and Street Kitchens and homeless people living in hostels (with shared dining, bathroom and toileting facilities), emergency accommodation (often with with shared rooms) will not be able to follow government advice.
- In these congregate settings there will be a very high likelihood of outbreaks with high attack rates.
- High levels of comorbidity will result in high case fatality rates if infected.

To enact latest Government guidance we propose a strategy **of Test Triage Cohort and Care** for homeless populations in hostels, temporary emergency accommodation, and rough sleepers to prevent high mortality and minimise impact on the NHS.

The **AIMS** of this strategy are**:**

1. **Protect the most vulnerable** - i.e. all adults who meet clinical criteria for influenza vaccination and those aged over 70 years of age
2. **Reduce/delay transmission risk**
3. **Prevent explosive outbreaks** in residential services and congregate setting
4. **Minimise impact on NHS and other essential services** - prevent inappropriate A&E and Secondary care attendance and reduce the need for hospital admission by effective supportive care in the community
5. **Prevent high mortality**

The key components of this strategy are:-

1. Establish centralised coordination for the homeless sector and efficient deployment of resources – **COVID-COMMAND**

2. Implement the **Test and Triage Protocol** across all relevant services (hostels, temporary emergency accommodation, and services supporting rough sleepers) using **non-NHS** front-line homeless sector workers supported by NHS staff to:-

    a. **IDENTIFY AND TRANSFER ALL SYMPTOMATIC HOMELESS PEOPLE/SUSPECTED CASES** (with new or worsening cough, SOB or fever (>37.5 degrees centigrade - TBC)) to **COVID-CARE FACILITY ASSESSMENT AREA FOR RT PCR TESTING**

    b. **IDENTIFY AND OFFER TRANSFER TO COVID-PROTECT FACILITY ALL ASYMPTOMATIC HOMELESS PEOPLE (with NO new or worsening cough, SOB or fever) WHO MEET NEW GOVERNMENT CRITERIA TO STAY AT HOME WITHOUT CONTACT WITH**

OTHERS FOR A TWELVE-WEEK PERIOD (those eligible for influenza vaccination or are over 70 years of age).

c. **EDUCATE AND ADVISE** all remaining asymptomatic untested and negative cases - standard COVID-19 precautions as per PHE advice and urgent future testing/transfer **to COVID-CARE** facility assessment area if symptoms develop.

3. **ESTABLISH COVID-CARE FACILITIES:**

   a. High specification hostels (own rooms and bathrooms), unused hotels or NHS /private sector clinical spec facilities (eg Mildmay).

   b. Providing a quarantined assessment area for COVID-19 testing and awaiting results

   c. Providing clinical support to symptomatic patients and rapid identification and transfer to NHS facilities for patients who need respiratory/life support

4. **ESTABLISH COVID-PROTECT FACILITIES:**
   a. These facilities aim to cohort ASYMPTOMATIC cases who are at very high risk of serious disease and death if infected during the period of intense community COVID-19 transmission
   b. COVID-PROTECT facilities must initially quarantine residents in their own rooms and maintain high vigilance and regular (at least daily) symptom screening in order to ensure that cases admitted who were initially asymptomatic BUT infected can be rapidly identified, isolated and transferred to COVID-CARE facilities
   c. Following a 14 day quarantine period residents are offered free movement and socialisation provided they remain within the facility.

5. **CONTINUE OUTREACHING TEST AND TRIAGE PROTOCOL ACROSS THE SECTOR FOR THE ENTIRE DURATION OF THE PANDEMIC**

Each of the key components of this strategy need to be implemented concurrently starting now in order to achieve the aims.

Delay in implementing this strategy will exponentially increase the likelihood of transmission events occurring within COVID-PROTECT facilities due to an increase in the number of residents admitted who were asymptomatic but infected.

Our initial calculations taking into account the decreased transmission, decreased A&E and ambulance use and decreased hospitalization this will cost around **£2000 per life saved.**

A) ESTABLISH CRISIS COVID-COMMAND - senior sector and NHS team supported by admin and logistics to act as a coordination and information centre providing:-

1. Management and logistics for all COVID-CARE and COVID-PROTECT facilities
2. Prioritisation of venues for TEST AND TRIAGE TEAMS to visit - based on initial prioritisation of large venues and those with high proportion with clinical risk criteria.
3. Information and awareness advice for the sector - web-based / hotline
4. Information resources and materials - hand washing/respiratory hygiene/social distancing, etc (as per PHE guidance)
5. Managing logistics/distribution and stock management of PPE, hand and respiratory hygiene materials across the sector
6. Phone and web hotline capable of taking direct requests from across the sector and organising referrals/transfer to COVID-CARE and COVID-PROTECT facilities throughout the pandemic
7. Managing transport logistics for referrals/transfer to COVID-CARE and COVID-PROTECT facilities throughout the pandemic
8. Central registry of location, status and priority alerts for all persons identified as eligible for testing (NHS-PHE agreement)
9. Central registry of staff (including peers and volunteers) to maximise efficiencies in deployment, provide direct advice, support and training and recruitment as needed.

B) ESTABLISH COVID-CARE AND COVID-PROTECT FACILITIES:

COVID-CARE FACILITIES

High specification hostels (own rooms and bathrooms), unused hotels or NHS /private sector clinical spec facilities (eg Mildmay).

Referral routes:

These facilities will take referrals of **PRIORITY 1 CASES** from:-

- NHS Test and Triage Teams
- Primary and Secondary NHS care providers
- Homeless sector professionals working in any relevant setting
- London Ambulance Service
- Police and other Emergency Services

- THESE FACILITIES AIM TO
  - A) ISOLATE (COHORT) CONFIRMED POSITIVE CASES for a minimum of 14 days post symptom onset). Cases with mild symptoms can be in rooms or communal areas. Cases requiring more intensive observation and management should be in clinical areas.
  - B) TEMPORARILY ISOLATE THOSE AWAITING TEST RESULTS (symptomatic patients) in own room with bathroom facilities and not using communal areas
  - C) REDUCE EXCESS MORTALITY through high-level supportive care and rapid escalation to critical care NHS facilities if needed

- Accept and Assess all symptomatic and recent contacts referred directly by any homeless service provider, including street teams, co-ordinated through CRISIS COVID-COMMAND.
- STAFFING - Medical / Nursing Support / Highly Trained Hostel Staff Peers And Ancillary Workers
- PPE AND HAND / RESP HYGIENE
- CLINICAL CARE AREA providing medical support to confirmed cases, pO2 and vital signs monitoring, oxygen availability and rapid escalation and transfer to hospital for cases in need of advanced respiratory / life support based on National Early Warning Scores (NEWS)

COVID-PROTECT FACILITIES:
High specification hostels (own rooms and bathrooms), unused hotels for 12 weeks during the period of intense community COVID-19 transmission commencing as soon as practically possible. Delay in opening will exponentially increase the likelihood of transmission events occurring within COVID-PROTECT facilities due to an increase in the number of residents admitted who were asymptomatic but infected.

- These facilities aim to cohort ASYMPTOMATIC cases who are at very high risk of serious disease and death if infected during the period of intense community COVID-19 transmission
- All residents will have CLINICAL RISK CRITERIA (aged over 45 with chronic illness or younger aged homeless with severe and debilitating co-morbidty or immunosuppression.
- COVID-PROTECT facilities must initially quarantine residents in their own rooms and maintain high vigilance and regular (at least daily) symptom screening in order to ensure that cases admitted who were initially asymptomatic BUT infected can be rapidly identified, isolated and transferred to COVID-CARE facilities
- Following a 14 day quarantine period residents are offered free movement and socialisation provided they remain within the facility.
- Residents that refuse/elect to not remain in the facility will be denied access to the social areas and either accommodated in a separated area with access to an exit or requested to leave the facility.
- COVID-PROTECT Facilities Are CLOSED TO UNAUTHORISED VISITORS
- COVID-PROTECT facilities will support continued HAND AND RESPIRATORY HYGIENE MEASURES
- **COVID-PROTECT facilities MUST maintain a VERY HIGH INDEX OF SUSPICION for COVID-19 symptoms and PROMPT TRANSFER TO COVID-CARE (ASSESSMENT) for all symptomatic cases.**
- Non-clinical staff team with floating clinical support including mental health and addiction and chronic disease management
- OWN ROOM AND BATHROOM facilities with access to TV.

COMMUNAL SOCIALISATION / DINING / ENTERTAINMENT AREAS FOR ASYMPTOMATIC RESIDENTS POST 14 DAYS QUARANTINE

C) IMPLEMENT COVID TEST AND TRIAGE PROTOCOL THROUGH LOCAL STAFF

- This protocol will be implemented by local staff following guidance and in-person or remote (telephone) instruction from NHS professionals across the capital within two weeks.
- The aim is to achieve a very rapid cohorting of symptomatic suspected cases and high risk asymptomatic cases - specifically those who meet government clinical criteria for influenza vaccination OR are over 70 years of age.
- After this period homeless residential services and services supporting rough sleepers should see a significant reduction in numbers of service users. This would enable a coordinated redeployment of some staff to cover COVID-PROTECT facilities.
- Following the initial intensive two-week period of implementing the protocol through local staff, NHS Test and Triage teams will provide and support an ongoing programme in all relevant venues across the capital

Test and Triage Protocol - all settings

TO COMMENCE AS SOON AS COVID-CARE AND COVID-PROTECT FACILITIES ARE AVAILABLE

PRIORITY 1

TRANSFER SYMPTOMATIC HOMELESS PEOPLE/SUSPECTED CASES (with new or worsening cough, SOB or fever (>37.5 degrees centigrade - TBC)) to **COVID-CARE FACILITY ASSESSMENT AREA FOR RT PCR TESTING**.

PRIORITY 2

IDENTIFY AND OFFER TRANSFER TO COVID-PROTECT FACILITY ALL ASYMPTOMATIC HOMELESS PEOPLE (with NO new or worsening cough, SOB or fever) **WHO MEET NEW GOVERNMENT CRITERIA TO STAY AT HOME WITHOUT CONTACT WITH OTHERS FOR A TWELVE-WEEK PERIOD** (those eligible for influenza vaccination or are over 70 years of age).

The following conditions are defined as clinical criteria for influenza vaccination:-

- chronic (long-term) respiratory disease, such as severe asthma, chronic obstructive pulmonary disease (COPD) or bronchitis
- chronic heart disease, such as heart failure
- chronic kidney disease at stage three, four or five
- chronic liver disease
- chronic neurological disease, such as Parkinson's disease or motor neurone disease, or learning disability
- diabetes
- splenic dysfunction or asplenia
- a weakened immune system due to disease (such as HIV/AIDS) or treatment (such as cancer treatment)
- morbidly obese (defined as BMI of 40 and above)

PRIORITY 3

EDUCATE AND ADVISE all remaining asymptomatic untested and negative cases - standard COVID precautions as per PHE advice and urgent future testing/transfer to COVID CARE facility assessment area if symptoms develop.

D) ESTABLISH COVID TEST AND TRIAGE TEAMS

These teams will consist of trained NHS and homeless sector staff, peers and volunteers with personal protective equipment (FFP3, aprons, gloves, goggles or visors - if FFP3 not available then with surgical mask). Alcohol hand gel. Waste disposal equipment, and nose and throat swabbing kits. Teams will have access to private transport facilities (Car or minibus).

This intervention will comprise an intensive Test and Triage outreach programme throughout the pandemic scaled according to transmission levels. Teams will visit all relevant services under the coordination of CRISIS COVID-COMMAND.

Services to be included will include:-

1. **Hostels and Emergency Accommodation for rough sleepers**
2. **Day centres and street services supporting rough sleepers**
3. **Street outreach teams**

The logistics of outreaching Testing and Triage will present specific challenges in different settings.
In hostels providing single occupancy accommodation **Test and Triage** teams will liaise with service managers to request all residents to remain on-site and confined to their own rooms during the test and triage process.

In congregate accommodation settings (without own rooms) and Day Centres and Street Services, **Test and Triage** teams will work with COVID-COMMAND and local service providers to develop the best approaches that both maintain public health principles and are logistically practical. This could include:-

- evening and 'out-of-hours' sessions
- implementing hub and spoke models to enable users of smaller or temporary service to access testing and triage in larger hostels
- use of covered outside areas for testing and triage
- Street outreach teams directly supporting rough sleepers to attend planned sessions

Annex 1: Minimising the impact of COVID-19 in the homeless – Evidence Statement.
COVID 19 infection has high mortality amongst the elderly and those with chronic illness. For example, in diagnosed cases in China the mortality rates in those aged 50-59 were 1.3%, in those aged 60-69 were 3.6%, in those aged 70-79 were 8% and in those aged 80 plus years were 14.8%. (Figure 1- China CDC Weekly) For confirmed cases with chronic diseases the mortality rates were: cardiovascular disease 10.5%, diabetes 7.3%, chronic respiratory disease, 6.3%, hypertension 6%, cancer 5.6% , no chronic illness 0.9%. (Figure 2 – China CDC weekly).
Homeless people age prematurely and have very high rates of chronic disease placing them at very high risk of death if infected with COVID-19.
A systematic review identified very high levels of morbidity and premature mortality in people experiencing homelessness. (Aldridge et al). A survey of 1336 homeless people in London and Birmingham (modal age group 35-44 years) found 34% had one or more of the following conditions (asthma, chronic obstructive pulmonary disease, heart problems, epilepsy, stroke or diabetes) compared to 12% of the housed population. (Lewer et al). A recent electronic health record study of 8492 homeless people registered with primary care in England compared the prevalence of chronic disease to that seen in the housed population of the same age. The mean age was 39 years. The proportions of the homeless with chronic disease compared to the general population were: cardiovascular disease 11.6% vs 6.5%, diabetes 5.5% vs 3.1% chronic obstructive pulmonary disease 22.8% vs 14.8%. (Personal communication Ami Banerjee – UCL Institute of Health Informatics). A recent assessment of frailty in a London Hostel assessed 33 people with a mean age of 56 years. Using a standardised frailty score 55% were assessed as frail. Participants met a mean of 2.6 out of 5 frailty phenotype criteria, comparable to the mean for 89 year olds in the general population (personal communication Dr Rafi Rogans-Watson – Clinical Fellow Pathway).
In addition to physical health problems a high proportion of those using homeless accommodation projects have mental health issues (43%), drug issues (31%) or alcohol issues (24%). (Homeless Link)
People experiencing homelessness are often frequent users of emergency services. (Bowen)
Respiratory symptoms are common in people experiencing homelessness and are therefore unlikely to be a good method of identifying cases. A survey of 221 homeless people in Marseille during February found 50% had respiratory signs or symptoms including 41% with chronic cough, 16% with shortness of breath and 33% coughing up phlegm.

COVID-19 can cause explosive outbreaks in multiple occupancy settings. For example on the Princess Diamond cruise ship despite intensive measures to separate those with symptoms from others, the universal availability of private rooms with ensuite facilities and the removal of known positives to hospital, the attack rate reached 17% (619/3700) of passengers and crew. It is modelled that without these control measures the attack rate could have reached 75% (2920/3700) but that if passengers and crew had not been kept on board the attack rate would only have been 72/3700. (1.9%). In the United states a 120 bedded nursing home had 50 residents infected and 23 deaths (19 of which were confirmed as COVID-19) in the course of 2-3 weeks.(Life Care Centre – Kirkland- Washington).

In Wuhan there have been large outbreaks in prisons infecting at least 800 inmates (Yang Z) as well as in a long term care facility (WHO China Joint Mission). In South Korea a cluster of 114 cases primarily from a psychiatric ward caused five reported deaths. (Shim et al) We also know that high mortality outbreaks of influenza and other respiratory infections occur frequently in nursing homes (Lansbury et al) and outbreaks of respiratory infection are common in homeless shelters (O'Connell). Across England in 2018 in 2018 there were 34900 beds across 1085 accommodation projects (average size 32 occupants) as well as 186 day centres where homeless people congregate for long periods in crowded settings. (Homeless Link). On a single night in 2018 there were 552, 830 people experiencing homelessness in the USA, approximately 2/3 of these were sheltered and 1/3 unsheltered. Emergency shelter capacity is 286,203.

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Annex 2: Risk stratification for Test and Triage Teams

1. New or Worsening COUGH OR SHORTNESS OF BREATH OR FEVER (>37.3)?

> **YES - Test and Transfer immediately to COVID CARE ASSESSMENT AREA**
>
> **NO - Go to 2.**

2. AGED ≥ 45 WITH CHRONIC ILLNESS (COPD/ASTHMA, CORONARY HEART DISEASE, DIABETES)?

> **YES - TEST - If positive transfer immediately to COVID CARE FACILITY. If negative, offer transfer to COVID PROTECT facility.**
>
> **NO- Go to 3**

3. AGED < 45 with severe debilitating comorbidity or immunosuppression?.

> **YES - TEST - If positive transfer to COVID CARE FACILITY. If negative, offer transfer to COVID PROTECT facility.**
>
> **NO - Inform and Advise about action to be taken if symptoms develop, respiratory and hand hygiene**