

Covid-19: Managing the Pandemic in the UK. The '2 Steps Ahead' programme

Principles

1. Anticipate and plan for the lead time (T- minus); proactive and not reactive.
2. Base on existing plan for pandemic flu until better intelligence
3. Flatten the curve to reduce peak demand and NHS overwhelm
4. Focus preparation to protect those most likely to be hospitalised
5. Plan to displace NHS resident DToC capacity ahead of demand rise
6. Focus on public education and support; social mobilisation
7. Diminish unnecessary contact rates for all
8. Develop the concept of 'closed communities' to avoid inbound infection (care homes prisons) as well as key industries

Flattening the Curve: Diminishing the rate of spread in society, extending the duration

1. Reduce all movement into and out of the country; progressive restriction benefits the UK and the wider global community.
2. Where movement is unavoidable reduce the number of people who are moving.
 - a. Major shift to 'home working' of all desk-based employees from certain T-minus dates – internet capacity check needed. Close down commuting options
 - b. Limit travel within the UK; ban the use of private cars and replace this with an approved transport routes for key workers – list of professions/trades tbc.
 - c. All lorries to be driven by a single person, camping out in their cab at night.
 - d. Move to a home delivery model of food supply with a single delivery driver (consider rationing/standard food packs delivered to every household) – certainly for vulnerable individuals – see below
3. Increase to 24-hour 7/7 working of supermarkets to reduce contact risk of staff and shopper crowding
4. Ban public gatherings, meetings, conferences above certain numbers (progressively reduce the number who can gather to achieve control of spread).
5. Encourage essential key workers to embed / "camp out" for 4-6 weeks in their workplace to reduce contact rates; isolated but fully supplied in order to keep the essential services running: electricity generation, water, sanitation, communications, fuel supplies for essential vehicles, food supply supply-chain and deliveries.
6. Rota replacement of embedded staff with those who are tested to be clear 48 hours before changeover
7. Close schools except for key worker children, cafes, restaurants, non-essential services.

Flattening the Curve: Vulnerable Individuals

1. Identify vulnerable individuals (VIs) in advance and issue advice on self-isolation and protection: identified on either:

- a. **medical grounds** are immunosuppressed by condition (renal failure, cancer, blood disorders, diabetes) and/or medication (organ transplant, chemotherapy, steroids)
 - b. **social / individual characteristics** frail elderly, multiple comorbidities, drug and alcohol dependence
- 2. Commission identification of VIs through GP practices by software providers search tool based on diagnosis list and medicines review.
- 3. Survey all VIs to determine level of friend and family support or social isolation
- 4. Advise VIs when (T-minus) to move into self-isolation, and how long to remain there.
- 5. Suspend chemotherapy and other healthcare interventions that create new VIs.
- 6. Consider establishing “sealed communities” of VIs (e.g. hotels) with residents and staff all living on site continuously for 4-8 weeks, supplied by regular deliveries.
- 7. Residential homes, nursing homes and prisons could also become “sealed communities” with staff living in for an extended period.
- 8. Use of selected diagnostic swabbing to identify when new staff can enter/leave VI sealed communities and contact.
- 9. Create home support programmes for VIs for food, medicines delivery etc. on-line ordering and through voluntary sector pairing with a family or community volunteer helper
- 10. Internet capacity and communications support - both will be crucial to supporting “sealed communities” and home working
- 11. Food distribution. The creation of large-scale self-isolation communities for an extended period of time creates the need to consider balanced nutrition and special dietary needs. Products from this could be standard food parcels of non-perishable supplies for adult/child etc. These could be developed/distributed via supermarkets with online ordering and delivery services - delivery drivers are going to be a key worker group

Releasing Capacity

- 1. Stop all elective and planned work except urgent and cancer treatment (circa 12,500 beds available over 4 weeks; 50% in 5 days).
- 2. Mobilise all private and independent providers and capacity (c8000 beds).
- 3. Set up additional facilities to provide care in hotels, private sector, etc. and empty hospitals of DToC (5% of NHS occupancy or 5000 beds) into these proactively, then seal them.
- 4. Repurpose all clinical staff to provide core healthcare services and support; including outpatient staff into the community and ‘sealed community’ facilities.
- 5. Radical (too?): allow healthcare staff who are least likely to develop complications (fit <45 yo) to be exposed early in a controlled way in order to develop a core of immune staff to provide services during peak demand – this will happen in any case, but could be modified substantially.
- 6. Separate COVID work from all other healthcare by designating COVID and non-COVID facilities such as wards in hospitals, bays in ED, segregated GP practices, home care services, patient transport, etc. Similar to sealed communities but lesser scale

7. Identify, by serology antibody count, the 'immune community' of healthcare workers post COVID infection who can rapidly resume work at low risk and with reduced PPE
8. Consider immune community testing and identification if possible for community volunteers too
9. Measures as set out in the pandemic flu plan, including triage of resources and ultimately population triage using simple principles.

Public Education and Support

1. Begin the preparation and media campaign now; needs the very best expert advice.
2. Potential to use a "war" analogy (we are at war with the virus)
3. The UK has nothing to fear, and for most the infection is nothing more than a mild cold, however we've got to fight to defend our elderly and most vulnerable members.
4. Time limited laws and powers to support compliance, maintain order and prevent civil unrest.
5. Everybody must do their bit; look after your family, your friends and neighbours.
6. Pull together to get through, and it will soon be over.
7. Stay up to date, listen to instructions and follow advice; everything will be back to normal soon.