

## **UK INFLUENZA PANDEMIC : IMPLICATIONS AND CONTINGENCY**

### **PLANNING FOR DIABETES SERVICES (DRAFT)**

#### **IMPLICATIONS:**

People with diabetes are more susceptible to infection and are at significant higher risk of adverse outcome including increased mortality. Diabetes identifies a potentially vulnerable population in the event of an influenza pandemic. Sub-optimal diabetes control impairs natural immunity to infection and delays recovery. Infection itself further aggravates dysglycaemia leading to a classical adverse vicious cycle. Optimising glycaemic control during acute infection is a fundamental principle of diabetes management.

In addition diabetes is associated with the development of well recognised long-term complications which will further increase risk of co-morbidity and mortality during an influenza pandemic. There will be special considerations for patients with renal impairment (nephropathy), but in particular the greater prevalence of underlying coronary heart disease is likely to lead to increased acute cardiac events, known to be triggered by influenza infection.

The higher risk from influenza for patients with diabetes is recognised by the recommendation that annual vaccination should be given. Influenza vaccination has been shown to reduce hospital admissions among people with diabetes and to lessen associated

complications (such as pneumonia) and mortality. It is uncertain whether vaccination, either in terms of supply or specificity, will be available for such an anticipated influenza pandemic.

These considerations will have major implications to diabetes services throughout all healthcare sectors – primary care, community and acute hospital (secondary/tertiary) care. Influenza infection is likely to result in a substantial need for acute diabetes service provision – increased hospitalisation (presently diabetes occurs in 15% of patients in hospital, and likely to be higher during a pandemic). Rapid emergency access clinics (likely need for significant increase in new insulin conversions). Close communication between primary care and specialist teams will be essential to ensure diabetes service provision is at its most effective and efficient. At the same time, although routine aspects of diabetes care will be deferred, many patients with diabetes will continue to have special needs requiring immediate attention and these clinical care pathways will need to be preserved and carefully controlled.

## **CONTINGENCY PLANNING:**

### **a. Generic:**

In the event of a major UK influenza pandemic there will be a number of generic principles applying to all medical sub-specialities, including a number of the following:

- A significant increase in patients with acute influenza infection will require emergency access to medical services.

- Healthcare providers themselves will potentially suffer illness thereby reducing capacity to provide care with resultant increased demand on others remaining at work.
- Workforce planning should be determined, recognising potential reduction of capacity through staff illness and through likely redeployment to other areas (eg Diabetes Specialist Nurses to the Medical Wards).
- All routine activity will cease for approximately 4 months, requiring specific advance contingency planning (identifying aspects of service to be cancelled, which patients to be deferred, what procedures to be put in place).
- Maintenance of certain sub-speciality services (circa 10% ?) for those with immediate emergency need or under life threatening circumstances.
- Establishing good communication channels between primary care (where most “front line” involvement will take place) and specialist teams for management advice and rapid access where needed.
- Prior consideration of difficult issues such as priority setting and ethical planning (see College journal: Clinical Medicine 2008, vol 8(1) 49-52):  
Professional responsibilities/personal risk  
Overwhelmed acute services (eg ITU) – resource allocation/triage/who loses out.

**b. Specific (Diabetes):**

**Secondary Care Services:**

**Outpatient activity:**

- All “routine” follow up consultations to be cancelled/deferred for circa 4 month period.
- Minimum staff required to provide essential specialist services to be determined
- To identify high risk cases that still need to be seen:
  - Disabling hypoglycaemia
  - New type 1 diabetes requiring urgent insulin treatment
  - Pregnancy and Diabetes
  - Serious diabetic complications:
    - Incipient gangrene/critical ischaemia of foot
    - Visually threatening retinopathy
    - Stage 4 renal failure

**Acute metabolic disturbance:**

People with diabetes suffering from acute influenza infection are likely to experience deterioration in glycaemic control, resulting in a number of potentially emergency situations:

- Diabetic ketoacidosis (likely need for admission)
- Hyperosmolar dysequilibrium (likely need for admission)
- Requirement to increase existing medication (increase in oral hypoglycaemic tablets, increased insulin dosage, increased need to convert from tablets to insulin all likely to require specialist HCP input).

### **INPATIENT DIABETES MANAGEMENT:**

It is expected that there will be a significant increase in numbers of people with diabetes requiring hospital admission, and which therefore will in turn require increased specialist diabetes support to ward areas:

- Deploying greater proportion of specialist team (medical/nursing) to acute ward areas
- Provision of specialist advice on diabetes to facilitate early discharge from hospital

### **COMMUNICATION WITH PRIMARY CARE:**

Good communication channels are essential:

- To ensure optimal management of diabetes in the community to minimise need for hospital admission.
- To facilitate early discharge from hospital
- To provide immediate/rapid advice on management of Diabetes

### **PRIMARY CARE SERVICES:**

General Practitioners and healthcare professionals working in the community will shoulder a major impact from an influenza epidemic and the consequences to people with diabetes. 90% of diabetes management is currently undertaken in primary care. This will therefore entail specific contingency planning in the event of an influenza pandemic:

- All routine diabetes reviews should be suspended.
- Emergency access for “acute” diabetes related problems will be needed.
- Rapid effective communication channels to the multidisciplinary specialist team should be established.

- Clinical care pathways for high risk complications eg foot ulceration, incipient gangrene should continue.
- Retinal screening programmes could be maintained (as separate from clinical services), although are likely to be disrupted because of patient and staff illness.

Diabetes is likely to be a major consideration during an influenza pandemic. A substantial increase in demand for acute diabetes management support is likely to be experienced in all areas of healthcare and there is a potential risk that specialist service provision and capacity could be placed under severe strain and be overwhelmed. Detailed local contingency planning is recommended and preparatory educational initiatives providing awareness of what will be required and what will need to be done should be set in place prior to the anticipated influenza pandemic.

Professor Ken Shaw

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