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Guidance for Managing STI Outbreaks & Incidents:

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This document covers guidance for managing outbreaks of sexually transmitted infections at a local or regional level and national support. It is an outbreak plan which has been produced by the HIV/STI Department, HPA Centre for Infections and HPA Local and Regional Services Division in collaboration with the British Association for Sexual Health and HIV (BASHH) and the Public Health Medicine Environmental Group (PHMEG).

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Glossary of Abbreviations

BASHH: British Association for Sexual Health and HIV

CCDC: Consultant in Communicable Disease Control

Cfi: Centre for Infections

CHP: Consultant in Health Protection

CPHM: Consultant in Public Health Medicine

DPH: Director of Public Health

GUM services: Genitourinary medicine services

HPA: Health Protection Agency

ID Physician: Infectious Diseases Physician

LARS: Local and Regional Services Division, HPA

NHS: National Health Service

OCT: Outbreak Control Team

PCT: Primary Care Trust

RDPH: Regional Director of Public Health

RE: Regional Epidemiologist

SHA: Strategic Health Authority

STIs: Sexually transmitted infections

Principles of managing outbreaks/incidents of sexually transmitted infections

1. Purpose

This guidance is designed primarily for Health Protection professionals at local, regional and national level (including CsCDC/CsHP and Regional Epidemiologists); Genitourinary Medicine staff at local level; and public health professionals within Primary Care Trusts or within SHAs/Regions (both Directors of Public Health and sexual health leads). It aims to make explicit, arrangements for the investigation, management and control of outbreaks/incidents of sexually transmitted infections (STIs).

An STI Outbreak/Incident

Definition includes:

Observed number of cases greater than expected over a defined time period in a given community; linked cases of STIs; need for re-organisation of services or identification of additional resources to manage cases; and any case of congenitally acquired infection. (CDSC, 2000)

2. Underlying Principles

2.1 Patient confidentiality is a central tenet of GUM practice. The law allows sharing of patient information with other health professionals in the interests of controlling spread (NHS (Venereal Diseases) regulations 1974, and NHS and Primary Care Trusts (Sexually Transmitted Diseases) directions 2000).

These provide that: *information regarding an individual examined or treated for any sexually transmitted disease should not be disclosed except:*

- a) *“for the purpose of communicating that information to a medical practitioner, or to a person employed under the direction of a medical practitioner in connection with the treatment of persons suffering from such disease or the prevention of spread thereof,” and*
- b) *“for the purpose of such treatment or prevention”*

2.2 STIs have particular features which make them distinct from other infectious diseases. They are often associated with some degree of stigma, and confidentiality concerns for patients may restrict the availability of GUM clinic held data. Treatment of the index patient and their sexual contact(s) is important to prevent re-infection and onward transmission. In some instances sustained behavioural change may be required to reduce the incidence among vulnerable sexual networks. These need to be taken into consideration when planning interventions to control outbreaks.

2.3 The basic principles of STI outbreak investigation are the same as those for any outbreak of infection. However, particular features of STI outbreaks require more specific arrangements for their investigation and control. These include:-

- **Identification:** Identification and initial investigation of outbreaks can be by the local GUM physician, the CCDC, Microbiologist or RE. Typically one of those involved recognises that there has been an increase in cases over a period of time and then discusses this with Local, Regional, or National HPA staff or with local NHS Public Health staff. The Consultant Microbiologist may report to the GU clinician that there seems to have been an increase in cases of a particular STI, and this may be confirmed by a more detailed look at the data. It may however be GU clinic staff when undertaking KC60 / GUMCAD coding who recognise this and discuss it with others.
- **Multi-disciplinary approach:** The nature of outbreaks of STI is such that a range of professionals other than health protection personnel should be involved in their investigation. Of critical importance is involvement of physicians and sexual health advisers at GUM clinics as well as public health professionals (e.g. DPH) and sexual health leads from PCTs.
- **Tailoring interventions:** Interventions used to control STI outbreaks will depend on the disease and the population affected. The identification of sexual contacts and sexual networks will be crucial to effective intervention. Health promotion may need to be targeted to specific sub-populations or more generally and will need to include preventative strategies as well as awareness raising.
- **Time-scales:** The timeframe within which STI outbreaks will be investigated and controlled will usually be significantly greater than for other outbreaks of infection.

3. Prerequisites for implementing the STI outbreak prevention and control plan

Professional responsibilities: A number of key professional groups and agencies have an important role in the prevention and control of STIs. These include the Independent Advisory Group on Sexual Health and HIV, BASHH, GUM physicians, CCDCs, Directors of Public Health, Consultants in Public Health Medicine, Microbiologists, Health Advisors at GUM clinics and non statutory organisations such as the Terence Higgins Trust, National Aids Trust, etc. There may also be local Voluntary Agencies who would play a key role especially if particular groups needed targeting.

The effective control of STIs at all levels is dependent on the provision of adequately resourced, high quality genitourinary medicine services.

Communication: Directors of Public Health should ensure that there is regular, (preferably twice yearly) formal contact between these key staff to ensure the existence of well-informed, up to date networks and local plans which will facilitate effective investigation and intervention in the event of an outbreak. In some situations this may be devolved to individuals other than the DPH to ensure that such networking happens.

Contingency planning: The locally adapted plan should identify financial resources/contingency funds that may be called upon should financial help be needed in supporting disease control interventions (e.g. health promotion, additional GUM services and outreach work). This would normally be the responsibility of the PCT to fund and it is

another reason why it is important to involve the sexual health lead from the local PCT early in the course of an incident / outbreak.

Guidelines for Managing Local Acute STI Outbreaks

4. Managing local STI outbreaks and incidents

It is important that the different organisations responsible for the control of STIs collaborate with each other in the event of a suspected outbreak and where appropriate, reach joint decisions on key issues. Close liaison between GUM consultants and CCDCs and PCT Director of Public Health will be particularly important.

For local outbreaks, the CCDC communicates with the HPA Regional Epidemiologist, HPA Regional Director and the Centre for Infections. Whether the DH should be informed of the outbreak will be discussed between the HPA Regional Director and the Centre for Infections and decided who was in the best position to inform the DH. As a guideline, Cfl would want to be informed of any outbreaks which crossed regional boundaries, involved considerable numbers of cases including HIV infection, a congenital case or situations which are likely to attract media attention. More generic guidance is found in the HPA's incident and emergency response plan on the HPA's intranet.

5. Phases and objectives of local STI epidemic

The identification, management and control of a localised STI epidemic may be described in three phases.

5.1 Preliminary Phase

Any investigation is dependent first of all on some one alerting others to the possibility of an incident/outbreak. This may be a variety of professionals as covered in 2.3 (first bullet).

The preliminary investigation should be carried out jointly by the GUM physician, CCDC, microbiologist and ID physician (where HIV is directly or indirectly involved) and PCT DPH / Sexual health team.

The **objectives** are to determine whether a problem exists, its nature and the immediate steps needed to identify cases and contacts. It also establishes whether the episode is of sufficient significance to require special arrangements for investigation and management. It is important to exclude other causes of localised increases in disease reports (including artefactual explanations) before declaring a localised epidemic.

Descriptive epidemiological investigations should be undertaken at this stage by the local GUM physician and CCDC. It is important to establish as early as possible those *primarily affected* and *the possible source*. Based on the result of the preliminary descriptive investigations, the CCDC and PCT DPH will decide whether to convene an Incident Control Team / Outbreak Control Team (OCT).

When it is necessary to convene an OCT, REs or Cfl Consultant Epidemiologists will usually be informed and where it would be helpful, invited to join the team. OCTs will also invite NHS and / or HPA microbiologists (as appropriate) and other HPA staff to assist in

the investigation of local outbreaks. It is important that their roles and responsibilities are made explicit to the OCT to avoid possible confusion over the HPA contribution.

Involving the voluntary sector may be particularly important when dealing with hard to reach communities. There are no strict guidelines as to when involvement should occur and the OCT should be guided by the local context. The delicacy of issues surrounding STIs may be such that the press officer for the HPA / SHA / PCT might also need to be involved at an early stage. Local circumstances and the nature of the outbreak will determine which organisation's press officer leads on communications issues. In large outbreaks (particularly where they cover several regions or have complex multi-agency issues to resolve), a multi-agency media sub-group may need to be set up to ensure coordinated media / communications response

5.2 Control Phase

This phase is characterised by the formation of an outbreak control team. The aim is to develop and implement strategies geared towards interrupting the onward transmission of infection and preventing further cases of acute STI amongst the affected population.

Key elements of the control phase are:

Active case surveillance: A range of interventions including collecting detailed case information, reference laboratory testing of isolates, case interviews, social and sexual network investigation and monitoring of partner notification effectiveness may be undertaken.

Analytic epidemiology: The decision to undertake a case-control or cohort study to identify possible sources of infection depends largely on the objectives of the investigation and the resources available to the OCT.

Microbiological investigation: Local NHS microbiologists may be required to provide detailed descriptive laboratory data on the STI being investigated and in some cases forward isolates to HPA reference laboratories for confirmatory testing and further phenotypic or genotypic typing.

Focused research studies: May be undertaken to understand the social context driving the local epidemic and may be useful with hard to reach populations.

Control measures: Understanding the epidemic phase may help to target the disease interventions and the surveillance tools for monitoring disease trends. The OCG must ensure that the interventions being implemented are appropriate to the epidemic and distribution of cases in the population. Control methods can be considered in two main dimensions:

Measures to find and treat additional cases (secondary prevention)

- Partner notification
- Social and geographic network analysis
- Publicity campaigns to encourage those at risk to come forward for screening.

- Alerting local practitioners (both GUM and general practice) to improve ascertainment of cases
- Provision of additional clinic sessions

Measures to attempt to modify sexual risk taking behaviour (primary prevention)

- General health promotion campaigns
- Targeted health promotion campaigns
- Targeted outreach work

5.3 Evaluation Phase

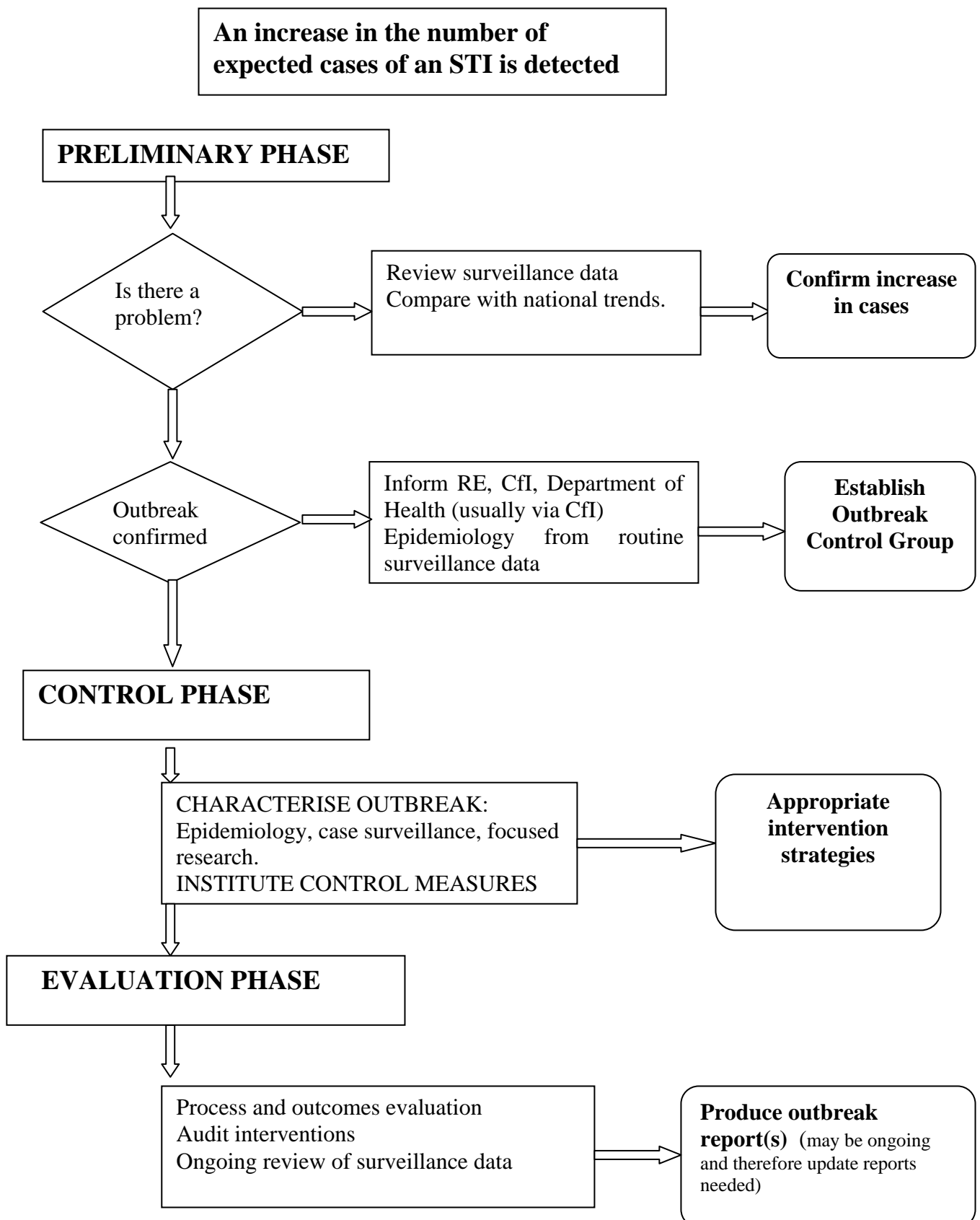
This is an important phase of the outbreak control and both process and outcome evaluations should be undertaken to determine the effectiveness of the interventions instituted.

Key **process measures** depend on the intervention, but may include: proportion of target population accessed, numbers of target population accessing intervention; uptake of intervention; frequency and coverage of intervention delivery; number and uptake of STI screening tests and number, range, coverage and type of health promotion interventions.

The chief **outcome measure** is an eventual reduction in the number of reported cases. In some instances, the decline in case reports may never return to baseline due to overall increasing secular trends in the general population or the establishment of the infection in hard to reach core groups.

To ensure that the standards of outbreak investigation remain relevant and that new aspects of investigation and or control are identified, the CCDC may audit the management of local incidents/outbreaks in conjunction with GUM and the RE.

6. Flowchart for managing localised STI outbreaks



7. Outbreaks involving more than one PCT in a region

Regional DsPH carry a responsibility for ensuring effective collaboration in dealing with outbreaks which cross PCT boundaries. In practice, this function may be discharged by the local HPU which covers a wider area or by the Regional Epidemiologists or the HPA Regional Director.

When outbreaks involve more than one district the HPU Director/Regional Epidemiologist or HPA Regional Director, in conjunction with the relevant CsCDC, may advise the OCT on the most appropriate mechanisms to ensure co-ordination of activities. In some circumstances, it may be appropriate to convene a single OCT with representatives from the other SHAs and PCTs which may be involved. Usually, the PCT which is most affected will take the lead role.

In outbreaks which cross several boundaries in a region, it may be appropriate to convene an 'over-arching' OCT which works closely with the PCT OCTs. PCTs may not have the resources and capacity to deal unaided with large, complex incidents/outbreaks. When this occurs the responsibility for invoking wider arrangements must rest with the local professionals. Another model may be to convene an overarching OCT but have local action groups reporting into the OCT.

When outbreaks are detected through routine regional or national surveillance, REs initiate the relevant investigation, with support from CsCDC and/or Cfl, as and when appropriate. When Consultant Epidemiologists at Cfl Colindale become aware of local or regional outbreaks, the relevant RE is informed. Where input from Cfl is required, a senior staff member from HIV/STI department at Cfl will discuss the incident with the RE and CCDC / Chair of OCT.

8. Declaring an incident over

There are no strict criteria for declaring that an STI outbreak is over but a variety of criteria may apply. These include:

- Stabilisation and/ or decline in incident case reports, (although with STIs an endemic phase may develop at a higher level than was previously observed)
- Decline in case reports to 'baseline' levels
- Decrease in reports to levels which can be managed within existing resources
- Return of local disease rates to national levels
- Reduction in disease prevalence (where available)
- High coverage (screening, vaccination) of at-risk groups
- High awareness and uptake of intervention among at-risk group

The declaration of the outbreak / incident being over should be done in consultation with the appropriate Director of Public Health (DPH) or Regional DPH in the form of a letter from the Chair of the incident team.

9. Report Writing

At the conclusion of an outbreak, a report should be prepared by the OCT and circulated to the SHA/PCT/HPA and other agencies involved, including GUM. It is important that all those involved in controlling the outbreak are acknowledged and provided with the opportunity to view the final report. The lessons learned from investigation of local and regional incidents may, in conjunction with the BASHH, be used to refine these guidelines and develop material for training purposes. Following investigations the local CCDC and HPA Regional Unit, should maintain heightened surveillance of the infection in question to monitor the effectiveness of interventions.

10. Summary of key roles and responsibilities in managing STI outbreaks

Professional	Responsibilities
CCDC /CHP	<p>Identification of outbreaks through routine surveillance. Provide local epidemiological support. Highlight priority to the commissioning authority and advocate if necessary for additional resources to deal with outbreak. Maintain heightened surveillance of the infection to evaluate the effectiveness of interventions. Audit management of local outbreaks in conjunction with GUM/RE. Develop materials for training purposes from lessons learnt (outbreak) Provide guidance on the overlap between public health and GUM</p>
Cfl Colindale	<p>Provide guidance for factors to consider rule-out artefacts in observed increases in STIs; provide national context for any rises observed. Provide information resources to advise about management of incidents. Provide advice on local research studies which may be undertaken. Assist in development of investigative tools. Occasionally, provide personnel to assist with field investigation or analysis of results. Development of methods to evaluate control measures. Specialist microbiological investigation</p>
GUM Physician	<p>Early identification of increasing STIs and communication to CCDCs. Facilitate confirmation of outbreaks through focused studies. Appraise capacity of local GUM services to respond to STI outbreak. Identify and help implement locally appropriate and acceptable control measures in conjunction with OCT.</p>
NHS Consultant Microbiologist and / or HPA Consultant Microbiologist	<p>Identify outbreaks through routine surveillance. Provide expert advice to OCT on interpretation of clinical data, methodology of investigation, collection of specimens and outbreak control methods. Provide expert advice on use of specialist diagnostic methods. Arrange prompt analysis and reporting of clinical samples. Arrange further testing at appropriate reference laboratories (see Cfl above).</p>
STI OCT Chair	<p>Direct and co-ordinate overall management of outbreak Ensure each member of the control group understands his/her role Be available throughout the episode for consultation and advice</p>

	<p>Be responsible for liaison between senior staff and clinicians and ensure timely communication between members of the OCT and other parties. OCT have responsibility for declaring the incident over.</p>
<p>Regional Epidemiologists</p>	<p>Identify possible regional outbreaks through routine surveillance. Support those with local statutory responsibility for communicable disease control including STIs. Help with the investigation and control of the outbreak by inputting to the OCT, offering expertise and/or field support. Keeping the HPA Regional Director informed and seeking their support as/when required. Assistance with auditing incidents. Support with the development of training exercises.</p>
<p>Communications Manager PCT Role(s)</p>	<p>Assistance with co-ordinating the handling of the media as well as re-assurance of the public. Role of the DPH who will be involved in the OCT (may be the chair of the OCT depending on local arrangements); Sexual health promotion team – likely to be based in the PCT and who will play an important role in control / interventions work ; Commissioning aspect of the PCT who will be responsible for funding any surge capacity / change to service delivery</p>