Public Health Incident Response Plan

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Abbreviations

APHA	Animal and Plant Health Agency
BCP	Business Continuity Plan
CBRNE	Chemical, Biological, Radiological, Nuclear and Explosives
CJD	Creutzfeldt-Jakob Disease
COBR	Cabinet Office Briefing Room
CPD	Continuous Professional Development
CPH(M)	Consultant in Public Health (Medicine)
CMO	Chief Medical Officer
COPFS	Crown Office and Procurator Fiscal Service
CRCE	Centre for Radiation, Chemical and Environmental Hazards
DIM	Detection Identification and Monitoring
DPH	Director of Public Health
DWQR	Drinking Water Quality Regulator
ECDC	European Centre for Disease Prevention and Control
EHO	Environmental Health Officer
EWRS	Early Warning Response System
FAI	Fatal Accident Inquiry
FSS	Food Standards Scotland
GP	General Practitioner
HAI	Healthcare Associated Infection
HIIORT	Healthcare Infection Incident and Outbreak Reporting Template
HIV	Human Immunodeficiency Virus
HIIAT	Healthcare Infection Incident Assessment Tool
HPS	Health Protection Scotland
HPT	Health Protection Team
HRU	Health Resilience Unit
HSE	Health and Safety Executive
HSWA	Health and Safety at Work Act 1974
ICD	Infection Control Doctor
IEM	Integrated Emergency Management
IHR	International Health Regulations
IMT	Incident Management Team
IPCT	Infection Prevention and Control Team
LA(s)	Local Authority
LDCC	Local Disease Control Centre
LRP	Local Resilience Partnership
MIP	Major Incident Plan
MOU	Memorandum of Understanding
NFP	National Focal Point
NHS	National Health Service
NMC	Nursing and Midwifery Council
NSS	National Services Scotland
PSoS	Police Service of Scotland (legal term, also referred to as Police Scotland)
PAG	Problem Assessment Group
PHE	Public Health England

PHEIC	Public Health Emergency of International Concern
PHI	Public Health and Intelligence (business unit of NSS which includes HPS)
PII	Personal Identifiable Information
RAG	Recovery Advisory Group
RRP	Regional Resilience Partnership
SARS	Severe Acute Respiratory Syndrome
SAS	Scottish Ambulance Service
SBAR	Situation, Background, Assessment and Recommendation
ScoRDS	Scottish Resilience Development Service
SEPA	Scottish Environment Protection Agency
SFRS	Scottish Fire and Rescue Service
SG	Scottish Government
SGHSCD	Scottish Government Health and Social Care Directorates
SGORR	Scottish Government Resilience Room
SHPIR	Scottish Health Protection Information Resource
SHPN	Scottish Health Protection Network (previously HPN)
SMO	Senior Medical Officer
SORT	Special Operations Response Team
STAC	Scientific and Technical Advice Cell
TB	Tuberculosis
UK	United Kingdom
WHO	World Health Organization
XDR-TB	Extensively Drug-resistant Tuberculosis

1. Introduction

Circumstances can arise when the health of the population may be at risk because groups of individuals are exposed, or at risk of being exposed, to infectious disease, high levels of harmful substance or adverse environmental conditions. These situations are public health incidents and NHS boards must take action to protect public health.

The vast majority of public health incidents do not require an escalated response. However, if an incident escalates and it is deemed appropriate, a co-ordinated response through the Regional Resilience Partnership (RRP) structure, underpinned by local arrangements of Local Resilience Partnerships, should ensue. This response is based on the guidance provided in 'Preparing Scotland' which reflects current legislation with regards to the Civil Contingencies Act 2004 and the Civil Contingencies Act 2004 (Contingency Planning) (Scotland) Amendment Regulations 2005 and 2013.

NHS Dumfries & Galloway (NHS D&G) is accountable to the Scottish Government Health and Social Care Directorates (SGHSCD) for protecting and improving the health of people living within Dumfries & Galloway. NHS D&G acts to protect human health during incidents within the context of shared responsibilities for improving health with Dumfries & Galloway Council (DGC) and also within the multi-agency emergency planning structures.

The Public Health (Scotland) Act 2008 provides clarity over the roles and responsibilities of NHS boards, HPS and Local Authorities (LAs) and provides more extensive powers. Broadly, NHS boards are responsible for people, and LAs are responsible for premises. NHS boards and LAs have a duty to co-operate in exercising their functions under the Act, and to plan together to protect public health in their area. This includes the production of a Joint Health Protection Plan every two years. Health Protection Scotland (HPS) has a role to coordinate national health protection activity. HPS is part of the NHS National Services Scotland (NSS) which is the common name for the Common Services Agency for the Scottish Health Service and designated a Category 2 responder.

2. Versions and Updates

The Public Health Incident Response Plan replaces the Major Outbreak Plan 2012. This revision takes into account changes in legislation:

i. The Civil Contingencies Act 2004 and the Civil Contingencies Act 2004 (Contingency Planning) (Scotland) Amendment Regulations 2013;
ii. International Health Regulations 2005 (IHR):
iii. Establishment of the European Centre for Disease Prevention and Control (ECDC) in 2005 and public health duties placed on member states through EC Directives including notification of outbreaks likely to cross borders;
iv. Establishment of Health Protection Scotland (HPS) in 2005;
v. The Public Health etc (Scotland) Act 2008;
vi. Health and Social Care Act 2012 and the establishment of Public Health England with responsibilities related to Scotland especially on chemicals, poisons and radiation.
vii. Public Bodies (Joint Working) (Scotland) Act 2014

The plan is based on the following guidance:

viii. Scottish Government. Management of Public Health – Guidance on the Roles and Responsibilities of NHS led Incident Management Teams, October 2017;
ix. Food Standards Agency/Scottish Government Health Department. "Guidance on the investigation and control of food-borne disease in Scotland" Cairns Smith Report, 2002, FSA (with updates).

x. NHS Scotland. Deliberate Release of Biological and Chemical Agents in Scotland- guidance to help plan the health service response" (Restricted), 2nd Edition, 2002;
xi. Health Protection Agency CBRN incidents: clinical management & health protection 2008
xii. Scottish Water. Waterborne Hazard Plan 2012.
xiii. Dumfries and Galloway Major Emergency Scheme – Partnership Document updated 2013
xiv. Dumfries and Galloway Major Emergency Scheme, Emergency Response and Recovery Arrangements 2013

3. Purpose and Scope

The plan sets out the shared and individual responsibilities for the management of a public health or environmental health event or incident, in particular the role of the Health Board Competent Person (The Public Health etc (Scotland) Act 2008) (acting on behalf of the Director of Public Health), who leads and co-ordinates the investigation of community outbreaks and advises on control measures. It clarifies the key role of D&G Environmental Standards Department (ES) and also describes the role of the DGRI Infection Control Doctor (ICD) in the management of outbreaks within Dumfries and Galloway Royal Infirmary (DGRI) and in Community Hospitals.

This document outlines the roles and responsibilities of Incident Management Teams (IMTs). It covers both planning and response based on a set of key principles and key functions. The guidance does not replicate that found elsewhere but sets out a hierarchy of existing guidance. It also illustrates how the response to an incident will change depending on the level and scale of that incident. It covers single and multi-board incidents and incidents where a national response is required.

The plan covers the whole of the Dumfries and Galloway area and makes special provision in the event of an incident crossing health board boundaries. In the event of a bio terrorism incident, National guidance[1] will supersede this Public Health Incident Plan. This plan is adopted by Dumfries & Galloway Major Emergency Scheme.

4. Definitions

4.1 Hazards and Exposures

The broad categories of agents which endanger health (hazards) and how we come into contact with them (exposures) are presented below with examples:

Hazards:

- Biological: infectious agents (e.g. bacteria, viruses, parasites, fungi and moulds), allergens (e.g. pollen) biological warfare agents;
- Chemical: natural or man-made (e.g. industrial, domestic, chemical warfare agents);
- Physical: radiation- ionizing (e.g. radioactive); non-ionising (e.g. UV); emissions from natural sources (e.g. radon), or man-made (e.g. deliberate release);
- Physical: natural particulates and man-made pollution, extreme weather events (e.g. floods, heavy snow) and natural disasters (e.g. volcanoes, tsunamis) forest fire combustion products, hydrocarbons.

[1] NHS Scotland. Deliberate Release of Biological and Chemical Agents in Scotland – guidance to help plan the health service response" (Restricted), 2nd Edition, 2002.

Exposure and pathways:

- Person-to-person via direct contact with individual or indirectly from an individual's immediate care environment (including care equipment);
- Food;
- Water;
- Air;
- Animal (including vectors e.g. insects);
- Environmental

4.2 Incidents

Throughout this plan the terms incident and Incident Management Team (IMT) are used as generic terms to cover both incidents and outbreaks.

A **public health incident** may arise in the following situations:

- A single case of a serious illness with major public health implications (e.g. botulism, viral haemorrhagic fever, vCJD, XDR-TB) where action is necessary to investigate and prevent ongoing exposure to the hazardous agent;
- Two or more linked cases of unexplained illness that could indicate the possibility that they may both be caused by the same known or unknown agent or exposure I.e. an outbreak
- Higher than expected number of apparently unlinked cases or geographic clustering of a serious pathogen;
- A high likelihood of a population being exposed to a hazard (e.g. a chemical or infectious agent) at levels sufficient to cause illness, even though no cases have yet occurred (e.g. contamination of the drinking water supply)

The Public Health (Scotland) Act 2008 provides **a legal definition** of a public health incident that can be summarized as follows:

- If a person has an infectious disease or there are reasonable grounds to suspect that a person has such a disease; or
- A person has been exposed to an organism that causes an infectious disease or there are reasonable grounds to suspect that a person has been exposed; or
- A person is contaminated or there are reasonable grounds to suspect that a person is contaminated; or
- A person has been exposed to a contaminant or there are reasonable grounds to suspect that a person has been exposed; or
- Any premises or anything in or on premises is infected, infested or contaminated, or there are reasonable grounds to suspect it; AND
- There are reasonable grounds to suspect that the circumstance is likely to give rise to a significant risk to public health.

An **Incident Management Team** (IMT) is a multi-disciplinary, multi-agency group with responsibility for investigating and managing the incident.

4.3 Emergencies and Major Incidents

The Civil Contingencies Act 2004 defines an **emergency** as an event or a situation which threatens serious damage to human welfare in a place in the UK, the environment of a place in the UK, or war or terrorism which threatens serious damage to the security of the UK. The definition is concerned with consequences rather than the cause or source.

Major incident is a widely accepted term used to describe any emergency that requires the implementation of special arrangements by one or more of the emergency services, the NHS or LA. Major incidents are events that may severely disrupt health and social care and other functions (power, water etc) and may exceed even collective capability within the NHS or LA.

The response to these events will be co-ordinated through the RRP/LRPs, Scottish and UK arrangements as described in ***Preparing Scotland*** and should be led by police or other agency as appropriate.

Major and Minor Outbreaks

A Minor **Outbreak** is one that can normally be investigated and controlled within the resources of the Directorate of Public Health, the Local Authority's Environmental Standards Service and the NHS D&G Infection Control Team.

A **Major Outbreak** is defined as one in which

- A large number of people or multiple cohorts of people are affected including residents from beyond the D&G area
- The organism involved is unusually pathogenic (e.g. diphtheria, viral haemorrhagic fevers etc)
- There is potential for transmission to large numbers of people (widespread distribution of food product, public water supply or point source affecting large numbers)
- Where there are any unusual or exceptional features.

5. Tiered Response and Associated Incidents

The level of response required will depend on the scale of the incident and the threat to public health. The need to escalate the response may also be influenced by the capacity of the NHS board, LA and partners to respond. The classification of public health incidents and suggested response is outlined in Table 1 below. This provides a guide only and the response taken may vary depending on the individual circumstances and risk assessment carried out by the IMT managing the incident.

Level	Actual or potential impact of incident	Response - Management	Response - Resources	Response - Briefing during incident	Post-incident Reporting
0	**Initial identification of potential incident** - significance in public health terms not clear	NHS board led Problem Assessment Group (PAG)	Local HP team, IPCT and LA staff	Consider HPS Consider SGHSCD according to protocol HIIAT assessment required in a healthcare infection incident[2]	Consider hot debrief template if any significant learning identified (Appendix G)
1	**Limited local impac**t - no significant risks to public health beyond the immediate group/setting affected in a single NHS board area	NHS board led IMT	Local NHS Board and LA staff as required Support from HPS and other agencies as required	HPS Consider HPS Alert DPH and senior managers in NHS board and LA as appropriate HIIAT assessment required in a healthcare infection incident (Appendix B) SGHSCD according to protocol Consider briefing LRP if appropriate	

2	**Significant local impact** - significant risk to public health beyond group/ setting affected mainly in single NHS board area	NHS board led IMT with links to other NHS boards as required Consider need for Resilience Partnership co-ordinated response if wider consequences	Local HP team, IPCT and LA staff Consider need for corporate response and/ or mutual aid Support from HPS and other agencies as required.	HPS Consider HPSAlert HIIAT assessment required in a healthcare infection incident DPH/senior managers in NHS/LA; SGHSCDas appropriate; Consider briefing RRP/ LRP partners & elected members	Hot debrief template SBAR5 or full incident report for NHS board/ LA and HPS
3	**Significant wider impact** - significant risk to wider public health affecting more than one NHS board	NHS board or HPS-led IMT with input from affected NHS boards as required[6] Consider need for RP co-ordinated response if wider consequences	Local HP Team, IPCT and LA staff Support from other agencies as required Consider need for corporate response and/ or mutual aid Consider need to activate Business Continuity Plan (BCP) or Major Incident Plan (MIP)	HPS Alert HIIAT assessment required in a healthcare infection incident Consider UK / EWRS / IHR alert DPH/senior managers in NHS/LA; SGHSCD as appropriate Consider briefing RRP/ LRP partners and elected	Hot debrief template Full incident report for NHS board/LA and HPS
4	**Severe local or wider impact** - major ongoing risk to wider public health affecting one or more than one NHS board with significant disruption of services	NHS board led Civil Contingencies response RP if impact in one NHS board area. or SG led RP response if more than one NHS board area is involved	All available public health resources in the NHS board(s) and LA staff deployed. Request mutual aid Consider HPS Activate BCP and/or MIP	HPS Alert UK / EWRS / IHR alert as appropriate DPH/senior managers in NHS/LA SGHSCD RRP/LRP partners elected members	Hot debrief template Full Incident report for NHS board/LA and HPS
5	**Catastrophic impact** - major ongoing impact on public health with major disruption of normal societal functions	SG led RP	All available public health resources in the NHS board(s) and LA staff deployed MIP activated	HPS Alert UK / EWRS / IHR alert as appropriate[6] DPH/senior managers in NHS/LA; RRP/ LRP partners; SGHSCD; elected members	Hot debrief template Full Incident report for NHS board/ LA and HPS

Table 1: Classification of public health incidents and suggested level of response.
Further information can be found in National Services Scotland Management of Public Health Incidents: Guidance on the Roles and Responsibilities of NHS Led Incident management Teams (2017)
Where an incident is being led by one NHS board or where two or more NHS boards are involved but with no major disruption of services, this guidance is to be used supplemented with any issue-specific guidance.

Where an incident is Scotland or UK wide, with some but no major disruption of services, HPS will coordinate the incident in Scotland in accordance with the National Services Scotland Management of Public Health Incidents: Guidance on the Roles and Responsibilities of NHS Led Incident management Teams (2017). When a Major Incident has been declared (an incident with major disruption of services and/or either affecting Scotland or UK wide) NHS boards, HPS and the Scottish Government will work to the plans based on the principles set out in 'Preparing Scotland'.

An incident that takes place in one NHS board or LA might also escalate sufficiently to necessitate declaration of a Major Incident and the consequent need to invoke the NHS Board Major Incident Plan and/or the RRP/LRP plans including arrangements for a Scientific and Technical Advice Cell (STAC).

In addition to 'Preparing Scotland', the SGHSCD has published NHS Scotland Resilience 'Preparing for Emergencies'-Guidance for Health Boards to help NHS boards be prepared when problems arise. This document also outlines specific types of incidents and sets out requirements for Boards e.g. chemical, burns and communicable diseases.

Further details of roles and responsibilities appears in Annex B of the NSS Management of Public Health Incidents: Guidance on the Roles and Responsibilities of NHS Led Incident Management Teams, including a full explanation of how the NHS board, LA and other agency roles change as an incident escalates.

6. Key Principles

The key principles of incident management are:

- A state of preparedness;
- Clarity of purpose and integrated working;
- An early and effective response;
- Effective communication with the public and other agencies;
- Learning from experience; and
- A prepared workforce.

6.1 A state of preparedness:

To enable an effective response NHS D&G Health Protection Team (HPT) incorporates in day to day working the surveillance, prevention, treatment and control of illnesses related to exposure to hazards or disease.

6.2 Clarity of purpose and integrated working:

Public health incidents usually require an integrated response from more than one organization. To ensure an integrated response can be delivered this incident response plan, and supporting protocols and procedures are drawn up jointly by NHS D&G with DGC and other partners.

6.3 An early and effective response:

The prompt detection of and response to an actual or potential public health incident is crucial. The Public Health Incident Response Plan should be put into action as soon as an incident is identified or suspected.

Information which draws the attention to the possibility of an outbreak may come to the attention of the following agencies:

- Health Protection Teams in the Directorates of Public Health both in NHS D&G and others;
- Microbiology Laboratories in NHS hospitals e.g. Department of Microbiology, DGRI, Reference Laboratories;
- Infection Control Doctors DGRI (ICDs)/Infection Prevention &Control Nurses (IPCNs)
- Local Authority's Environmental Standards Service;
- General Practitioners and Community Health Care Staff;
- Clinicians;
- Scottish Water Authority;
- Health Protection Scotland (HPS).
- Food Standards Agency (FSA) Scotland

To facilitate early detection of an incident frontline medical and laboratory staff are aware of and competent to diagnose illnesses likely to present immediate public health risks and notify public health.

Local epidemiological systems are capable of distinguishing clusters of cases requiring further investigation and control. The Electronic Communication of Surveillance in Scotland (ECOSS) is monitored on a weekly basis by the HPT in order to ensure all notifications have been received by the department. All appropriate notifications received are followed up in accordance with NHS D&G protocols which are based on national guidance.

HPS is the national surveillance centre for communicable diseases and the health problems associated with environmental hazards. Surveillance information is provided to HPS through an extensive surveillance network which encompasses laboratories, hospitals, GPs, NHS boards and local authorities.

HPS also contributes surveillance information at a UK and international level through close collaboration with these specialist agencies.

6.4 Effective communication with the public and among agencies:

Where appropriate the public are informed about public health incidents as widespread public anxiety can occur as a result of outbreaks and incidents. The Scottish Government, HPS, local health care staff, and partners in local and national agencies are briefed, through single or multi agency statements, as required. During an incident regular reports on progress are provided as agreed by the IMT. Information is shared through various means including: weekly updates, media releases, radio interviews, and face book pages.

6.5 Learning from experience:

Following an incident the management is evaluated and a report produced on the effectiveness and efficiency of the IMTs efforts. Reports are disseminated as appropriate with interested parties, so that the whole service can learn from the experience of others.

The Scottish Health Protection Network (SHPN) maintains a central repository of Incident Learning collected from incident meetings relating to IMTs, Problem Assessment Groups (PAG) or debriefs for public health incidents through the existing Scottish Health Protection Information Resource (SHPIR) web site.

Multi agency debriefs can also be accessed on each of the RRP Resilience Direct pages and National Lessons Quarterly Reports are issued by the Scottish Resilience Development Service (ScoRDS)

The IMT chair is responsible for identifying and following up key learning points.

6.6 Prepared Workforce:

Staff from all agencies who may contribute to managing public health incidents should be offered appropriate workforce education development opportunities (including CPD activities) on an ongoing basis. The HPS and NHS Education for Scotland national health protection workforce education initiatives are promoted and accessed by staff in D&G.

It is recommended that all staff who may be required to contribute to a resilience multi-agency group response participate in the ScoRDS core-learning programme so as to develop and maintain their knowledge and skills for effective multi-agency working.

7. Organisational Arrangements

7.1 Accountability and Reporting Arrangements

NHS Boards share responsibility for improving and protecting public health with HPS and LAs. In addition, representatives from other statutory agencies are involved in planning for and managing public health incidents, each agency fulfilling a remit on behalf of their own organisation and being responsible to it for actions taken in this regard. Each will have its own statutory duties to fulfill with regard to protecting public health. NHS D&G as the lead agency for protecting health in the region is responsible for the overall integrity of the arrangements for planning for public health incidents, and for the effectiveness of the incident response.

The NHS D&G and DGC Dumfries & Galloway Joint Health Protection Plan outlines the agreement reached between NHS D&G and DGC on:

- Developing, training and testing joint plans for managing public health incidents.
- Reviewing and approving incident plans.

NHS D&G should:
Follow up on the recommendations in IMT reports;

- Decide where the IMT report should be shared. The IMT group should discuss and make a recommendation on how to share the report. The IMT Chair should then recommend the sharing procedure to DPH and/or NHS board Chief Executive.
- Follow up on lessons learned
- Support the central repository for IMT and SBAR reports and/or debriefs for public health incidents through the existing SHPIR web site.
- Liaise with SGHSCD and other national agencies in developing national plans and procedures and reviewing the overall effectiveness of public health incident management in Scotland.

The DPH is responsible for putting these arrangements in place and updating them as appropriate. The DPH is responsible for ensuring that NHS D&G has sufficient resources to discharge the functions detailed in this plan.

If the IMT is not working as effectively as it should the DPH should take steps with senior management counterparts in other agencies participating in the IMT to assess and remedy any shortcomings.

7.2 Joint planning for public health incidents

NHS D&G has drawn up co-ordinated incident plans for Pandemic Influenza and Severe Weather with DGC and these are formally endorsed by the agencies involved. The plans are to be reviewed and jointly exercised at least every three years unless a significant incident has occurred. The plans should

outline a generic approach to managing incidents and be suitable to address the investigation and management of incidents resulting from exposure to scenarios involving microbiological, chemical, radiation and other hazardous agents.

It is essential that arrangements for handling incidents are integrated with overall wider multi-agency arrangements for emergency response. This is particularly important if there is any question of any criminal activity being involved in the causation of the incident e.g. the illegal supply of drugs and sale of food unfit for human consumption. However, the control of the incident and prevention of further illness must remain the priority.
The IMT Chair must consider an early meeting with Police Scotland and other key partners to agree the most effective forensic recovery plan if the police are not members of the IMT.

Personal Identifiable Information (PII) may be shared with IMT members on a need to know basis with the agreement of all IMT members to enable taking appropriate control measures to protect public health. If any members of the IMT representing one of the participating agencies have any objections to PII data sharing, then the chair of the IMT should discuss the issue with the Caldicott Guardian of the agency concerned to resolve this matter as soon as possible so that appropriate and timely investigations and control measures can be taken without delay.

NHS boards and HPS should reach agreement with their emergency planning partners, and in particular Police Scotland, about emergency response arrangements in the circumstances when criminal activity is implicated and consideration should be given to developing memorandums of understanding.

In certain incidents, e.g. those involving the deliberate release of a chemical or biological agent, NHS D&G, while retaining its own responsibilities, will play a key part in the overall response led by the LRP of the area in which the incident occurs and to have regard to the potential requirement to protect the crime scene in order to avoid prejudicing prosecutions.

When incidents involve, or have the potential to involve, criminal proceedings, the local Crown Office and Procurator Fiscal Service (COPFS) office are to be kept informed. COPFS has an interest in any deaths which are sudden, unexpected, unexplained or potentially suspicious (giving rise to potential criminal prosecutions).

NHS D&G, HPS and DGC must ensure that adequate resources are made available from the outset to investigate and manage the incident including the provision of suitable accommodation, facilities and sufficient experienced administrative support, particularly in the case of prolonged investigations. An inadequate initial response may have serious consequences for the wider public health. Investigations should never be delayed for financial or contractual reasons. Representatives of agencies on the IMT should have sufficient devolved authority to commit agency resources required to investigate and control an incident. These issues should be discussed among agencies as part of the arrangements for formally agreeing joint plans.

7.3 The Incident Management Team (IMT)

7.3.1 Arrangements for Leading the Team

It is the responsibility of NHS D&G to call an IMT. In public health incidents, a Consultant in Public Health (CPH(M)), Nurse Consultant in Health Protection (NCHP) or Specialist in Public Health will lead the investigation and management of the incident on behalf of the board, chair the IMT and co-ordinate the multi-agency IMT response. Usually this will be a CPH(M) with responsibility for Health Protection who will be acting with the delegated authority of the Director of Public Health. The CPH(M) will be responsible for initial action in response to the incident and convening an IMT. The size and nature of the incident will determine the exact arrangements and the IMT Chair can delegate some of the assigned tasks as necessary.

In a healthcare setting, the CPH(M) or the Infection Control Doctor (ICD) will chair the IMT depending on the circumstances and this should be agreed in advance and documented in the local plan.
The ICD will usually chair the IMT, lead the investigation and management of incidents limited to the healthcare site, where no external agencies are involved and where there are no implications for the wider community. The CPH(M) would normally chair the IMT where there are implications for the wider community e.g. during TB or measles incidents. For rare events, or where there is doubt about who should lead the investigations, the CPH(M) and ICD should discuss and agree who should chair the IMT
e.g. during CJD or hepatitis B/ HIV look backs. Where there is an actual or potential conflict of interest with the hospital service, it may be preferable for the CPH(M) to chair the IMT in discussion with DPH and HAI Executive lead (if necessary).

7.4 Problem Assessment Group (PAG)

In some circumstances where it is unclear if there is a threat to the public health, the CPH(M) may choose to convene a Problem Assessment Group (PAG) to undertake an initial assessment and determine if an IMT is required.

Outcome of the initial assessment may be one of the following:

- No significant risk to the public health - continue to monitor and PAG stands down;
- Potential/actual significant risk to the public health or environment and/or media interest - IMT required;
- Potential for significant public and/or media interest - IMT required;
- Not possible to determine if there is significant risk with current information - further investigation required. PAG or delegated member of PAG continues to review but no IMT at this stage.

The PAG should not delay definitive action and would normally only meet on one occasion to assess the situation.

7.5 Membership of the IMT

The membership of the IMT will vary depending on the nature of the incident. The IMT Chair will decide on the composition of the IMT and invite members to attend. The IMT would **normally** include:

- NHS board chair (usually a CPH(M));
- Nurse Consultant in Health Protection
- Health Protection Nurse Specialist;
- Local authority Environmental Health Officer;
- Specialist with expertise in the detection and characterisation of the hazardous agent involved in the incident e.g. a consultant microbiologist, public analyst;
- Infection Control Doctor and Infection Prevention and Control Team representative, if appropriate;
- Resilience Officer
- Appropriate Health Protection Scotland representation;
- Corporate communications officer;
- Administrative support;
- SGHSCD representative (e.g. Senior Medical Officer or policy officer) may attend in an observer capacity;
- Others, as appropriately identified by other IMT members.

The IMT may include primary care representatives, senior management, managers of affected care areas, clinicians, pharmacists, estates and occupational health as required.
It is recommended that the following remain standing agenda items at IMT meetings:

- Membership – Assess if the membership structure is appropriate and remains appropriate throughout an incident. It should be fit for purpose and remain flexible. Roles must be appropriate and members may feed into or integrate with LRP to work together. In particular, STACs may be operational during major public health incidents;
- Resourcing;
- Framework (incident management structure);
- If work escalates or goes beyond the scope of the IMT, consider seeking support through LRP/ RRP / Regional Resilience Coordinator and other personnel.

The IMT may also contain officers from other relevant agencies e.g. Scottish Ambulance Service, APHA, Scottish Water, SEPA, FSS etc whose input is essential to manage the incident. This could also include Third Sector organisations where appropriate, e.g. Scottish Drugs Forum. However, it is important that the IMT does not become too large as it may lose focus.

Sometimes a Scottish Government official will attend the IMT to facilitate liaison between the IMT and SG. In such instances, unless otherwise indicated, his/her status on the team will be as an observer.

The status of IMT members should be clarified at the first meeting i.e. full members, in attendance or observers. Prospective members of the IMT should declare any potential conflict of interest as individuals or on behalf of their organisations. Where a declaration of potential conflict of interest is made, it should be recorded and a decision made on the individual's status. Individuals who are not full members may continue to attend the IMT by invitation, but should not expect to have equal rights in terms of determining the conduct of the investigation, the advice given to the public, the content of press statements, or the final IMT report.

7.6 Role of the IMT

The IMT is an independent, multi-disciplinary, multi-agency group with responsibility for investigating and managing the incident. The IMT provides a framework, response and resources to enable the NHS board and other statutory agencies to fulfil their remits which are:

- To reduce to a minimum the number of cases of illness by promptly recognising the incident, defining how cases have been exposed to the implicated hazard, identifying and controlling the source of that exposure, and preventing secondary exposure;
- To minimise mortality and illness by ensuring optimum health care for those affected;
- To inform the patients, actually or potentially exposed groups, staff, clinical and management colleagues, public, their representatives and the media of the health risks associated with the incident and how to minimise these risks; and
- To collect information which will be of use in better understanding the nature and origin of the incident and on how best to prevent and manage future incidents.

In carrying out this remit, the IMT should assist the relevant statutory organisations, in a timely manner to:

- ensure that systems are in place to collect and collate all relevant information and verify, review and interpret its significance;
- carry out a risk assessment and decide on courses of action necessary to protect the health of the public;
- co-ordinate the investigation and management of the incident within the protocols and codes of practice of the agencies involved and having regard to extant legislation;

- liaise with HPS, SGHSCD and other relevant agencies to share information, draw on their expertise and ensure the agencies implement the actions that they are responsible for.
- co-ordinate the issuing of advice and information to the public directly and through the media, liaising as necessary with the SGHSCD communications team;
- ensure arrangements for the care of patients are in hand, and keep all relevant clinical professionals updated;
- agree criteria for standing the IMT down and declaring the end of the incident; and
- produce a full IMT report or SBAR for the NHS board Clinical Governance Committee normally within three to six months of the debrief. The report should be shared with SHPN if appropriate to ensure lessons identified are captured and shared (see Table 1).

The IMT may require to set up subgroups to consider specific aspects of the incident within their remit e.g. care of people, clinical care, communications etc. RPs can be used to add value by managing wider aspects of the response, removing them from the IMT. Details of these can be found in 'Preparing Scotland'.

All members of the IMT must have due regard to the confidentiality of information discussed in the IMT meetings. However, the IMT must also bear in mind the need to demonstrate openness and transparency when reporting the facts to the public, and the possibility of records being released under the terms of the Freedom of Information Act. All agencies represented in the IMT must ensure that relevant staff within their own organisations are regularly briefed about the incident.

Representatives from the individual agencies involved in an IMT should normally only carry out investigations, assess risk to the public health, take control measures, and make public statements after full discussion and agreement within the IMT, or, if that is not practical, with the IMT Chair. The IMT should bear in mind that some agencies i.e. the FSS and HSE are not bound to seek agreement from the IMT Chair or IMT itself; however the normal expectation would be that they would act in accord with the IMT.

Meetings should be kept to a minimum and be as short and efficient as possible without compromising safe working. Careful consideration should be given to the composition of the agenda, the timing, duration and frequency of meetings. Attention should be paid to the context of public concern in which an incident may be taking place, the different information requirements of the print and broadcast media, and the crucial issue of timing, to ensure optimal dissemination of information. Responsibility for this should be clearly assigned. Facilities should be in place to support the IMT i.e. identified room with the appropriate technology which can be commandeered immediately. A draft IMT agenda is included in Appendix C.

7.7 Administrative support

NHS D&G and HPS must ensure experienced administrative support is provided to support the IMT and is available in and out of hours. Accurate records must be kept of all IMT meetings and audio recordings should be considered. Provision must be in place to support good record keeping throughout the incident from the initial notification to the completion of the report. All discussions held, including phone and email, decisions made, and actions taken should be recorded. Agencies should ensure that administrative support is available at all times as required, including after the IMT has stood down for the production of a final report or any possible Freedom of Information Requests. In large or complex incidents, senior administrative support must be available and may need to include loggists and action chasers.

The IMT Chair should ensure that the findings of the initial investigation; timing and content of communications; outcome of initial risk assessment; decisions taken and all other relevant matters are carefully documented. This documentation should also include reasons why certain actions were

not taken/appropriate as well as why actions were taken/appropriate. A formal Decision Log that records options considered and decision taken should be used to facilitate this process (Appendix D).

Support for the IMT:
In some situations, pressures may be brought to bear on the IMT, which could distract it from its core purpose of managing the public health aspects of the incident for example when there is a sustained, large volume of enquiries about the incident from the public, media and politicians. In large and/or lengthy incidents, the IMT may require to consider the activation of the D&G Major Emergency Scheme (MES) Emergency Response and Recovery Arrangements Major Incident Plans and wider aspect of Business Continuity Plans both internally and across the member organisations in accordance with the MES Framework as outlined in the MES Partnership Document. In addition, the IMT Chair may require to discuss with the Director of Public Health the need for a corporate response by the NHS and partners to provide additional support within the locally agreed structures, for example an Incident Management Support Team or where necessary Resilience Partnership. Very large incidents can have secondary impacts on a range of services e.g. hospital care, food and water supply and may lead to the need for increased expenditure with money being reallocated from existing budgets. In large and/or lengthy incidents, there will be a need to make appropriate provisions for relieving IMT members who may become fatigued. In such instances, the IMT Chair should discuss with the Director of Public Health the need for a corporate response by the NHS and partners to provide additional support within the locally agreed structures, for example an Incident Management Support Team.

The IMT chair and the DPH should consider whether the incident can continue to be dealt with by the Health Protection Team or whether the incident requires a wider Public Health and/or NHS board response. It may be necessary to reprioritise the activity of the public health department and this should be done in a planned way. Shift systems should be implemented if it is anticipated that an incident may be large or protracted. These issues should be documented in Business Continuity Plans.

The Dumfries & Galloway Council (DGC) and other agencies involved in the IMT should also consider the impact of the incident on their resources and consider the need to activate their own Business Continuity Plans.

Dumfries & Galloway Local Resilience Partnership and the West of Scotland Regional Resilience Partnerships will work with the IMT to provide support as required.

The support required from other NHS board staff or partners could include:

- supporting the IMT by providing additional information and resources needed for its effective functioning;
- if necessary, acting as an alternative resource to help deal with certain external factors, including aspects of media enquiries;
- making tactical/strategic decisions on the wider impact of the incident on services not directly implicated in the incident;
- mobilising additional resources to aid the management of the incident; and
- responding to requests from the IMT for additional help required to resolve problems which may compromise the function of the IMT.

7.8 *Decision making by the IMT*

The IMT is an independent group set up specifically to investigate and manage the response to a public health incident. The IMT Chair's leadership role is delegated by the DPH on behalf of the NHS board Chief Executive and the NHS board, as the lead agency for protecting public health. The IMT Chair, therefore, has overall responsibility for managing a public health incident. As such the leadership of an IMT is invested in the IMT Chair and he/she will co-ordinate the activities of the other agencies. Where consequences arise as a result of the incident but not directly related to public

health issues, Resilience Partnerships may be established involving the necessary multi-agency representation to manage these consequences.
It is expected that the IMT will reach collective decisions but it may be necessary for the IMT Chair to make difficult decisions if the IMT cannot resolve an issue by consensus or if urgent decisions are required between IMT meetings. The final decision on action rests with the IMT Chair. However, in some circumstances it may be necessary for emergency action to be taken to protect the public health e.g. under the Use of Hygiene Emergency Prohibition procedures. The DGC should advise the IMT chair that emergency action has been taken as soon as possible.

All members of the IMT must recognise their individual roles as a member of the IMT and that they should be in a position to commit to act on behalf of their organisation.

Usually all members of the IMT will commit to collective decisions. In the rare event that a member is not supported by his/her organisation to a collective agreement to act, and this cannot be resolved by the IMT Chair, then the issue must be resolved at a higher executive level in both organisations. The DPH of the NHS board should work to achieve this in the first instance, and only if this does not achieve resolution should the Chief Executives of both organisations work to resolve the issue. Escalation to Scottish Government would not normally be envisaged, as issues of significant public health risk should be given priority by all organisations involved.

In some incidents, the IMT Chair may be required to contribute to a Scotland wide IMT led by HPS. In this situation, the IMT Chair retains responsibility for the investigation and management of the local public health response to the incident.

If the RP requests that the DPH convene a STAC, this response will be based on the 'Preparing Scotland STAC guidance'. In this situation, the NHS board still retains the responsibility for the investigation and management of the public health aspects of an incident, accountable to the NHS board, irrespective of an RP led response. There is still a need for the NHS board to ensure that the public health tasks associated with an incident are addressed in line with this guidance.

Depending on the situation there are various options:

- If an IMT has already been set up, it could carry on as an NHS board led IMT and the IMT Chair could agree with the RP chair that the IMT would act as the nominal STAC. In this case the focus of an IMT/STAC would remain primarily the investigation and public health management but additional members (e.g. SEPA, Scottish Water etc) could be invited to ensure that any other scientific or technical issues raised during the incident could be addressed if requested by the RPs.

- The alternative model recognises that, in view of an outbreak being primarily a public health incident, there is an overriding need for the NHS D&G resources to be focussed on maintaining the IMT and addressing the incident from the public health perspective. Hence the IMT should remain intact and separate but as a sub-group of a STAC, itself chaired by the DPH, CPH(M) or NCHP. In this alternative option, the IMT (as a STAC sub-group) should continue to deal with all issues pertinent to the public health response (as per this guidance) and should maintain contact with the STAC but via a liaison representative; the IMT is then free to leave any other scientific or technical advice issues to the rest of the STAC.

- The first option is likely to be preferable where NHS resources are limited. If NHS resources are particularly stretched, there is also the option for the STAC to be chaired by a non-NHS board agency.

- The structures implemented in any incident should be kept under review and essentially must address the needs of the particular situation and will also be influenced by the resources available.

In the hospital setting, the Infection Control Doctor (ICD) will usually chair the IMT and lead the investigation and management of healthcare infection incidents. Where there are implications for the wider community e.g. TB or measles, or rare events such as CJD or a Hepatitis B/HIV look back, or where there is an actual or potential conflict of interest with the hospital service, the DPH/CPHM may chair the IMT.

In DGC premises, DGC should recognise the potential for conflict of interest and ensure that measures are in place to manage such conflict.

7.9 External Advice

There may be circumstances when the IMT needs to seek external expert advice beyond what can be provided by member agencies. This should be discussed and agreed at the IMT.

7.10 After the incident

The IMT must decide when the public health response to an incident is over and, if it is appropriate, make a statement to this effect for release to the general public and other interested parties. It is suggested that this would come following formal assessment and report that there is no longer a significantly increased risk to the public health. However, it should be borne in mind that IMT members could be required to give evidence to any future inquiry.

The IMT should document the incident to ensure lessons learned are identified and shared. More detail on debriefs and IMT reports is provided in section 8.8 on evaluation and documentation.

8. Key Functions of Incident Management

8.1 Introduction

The key functions in managing incidents include the following and are described in more detail below:

- Surveillance, notification and reporting;
- Identification and initial response;
- Investigation;
- Risk assessment;
- Risk Management;
- Risk Communication;
- Audit, evaluation and documentation.

8.2 Surveillance, notification and reporting

An essential part of incident management is the recognition of a change in the distribution of illness or the occurrence of an illness of major public health significance. To this end surveillance, i.e. the timely collection and collation, analysis and dissemination of information for action, is a vital tool. Following the implementation of the Public Health (Scotland) Act 2008, all registered medical practitioners have a statutory responsibility to notify NHS board Health Protection Teams of any of the specified diseases or health risk states where there may be a significant risk to public health. These should be reported by telephone on the basis of reasonable clinical suspicion rather than awaiting laboratory confirmation. The telephone call should be followed up by written notification via email, within three working days or by written notification. (Schedule 1 of Public Health (Scotland) Act 2008 http://www. legislation.gov.uk/asp/2008/5/schedule/1)

Local diagnostic laboratories are also required under the Act to notify specified organisms within the same working day, followed by written/electronic notification within ten days. (Schedule 1 of Public Health (Scotland) Act 2008, link above)

NHS D&G and HPS has in place systems which enable them to analyse and interpret information collected through surveillance and identify: an increase in the incidence of a communicable disease, or of an illness which may be due to an environmental hazard, over that expected for a specific person, place or time;

- the clustering of cases, in person, place or time, of communicable disease or illnesses which may in part be due to environmental hazards;
- the occurrence of a single case of a serious infection with significant public health implications;
- the occurrence of a novel pathogen;
- a clustering of cases of severe illness which have an unusual clinical presentation;
- a clustering of unexplained illnesses; and
- the occurrence of an event which has led or has the potential to lead to a community or significant proportion of the population, being exposed to a hazardous agent.

Information which draws attention to the possibility of an outbreak may come to the attention of any of the following agencies:

- Health Protection Teams in the Directorates of Public Health both in NHS D&G and others;
- Microbiology Laboratories in NHS hospitals e.g. Department of Microbiology, DGRI, Reference Laboratories;
- Infection Control Doctors DGRI (ICDs)/Infection Prevention & Control Nurses (IPCNs)
- Local Authority's Environmental Standards Service;
- General Practitioners and community health care staff;
- Clinicians;
- Scottish Water Authority;
- Health Protection Scotland (HPS).
- Food Standards Agency (FSA) Scotland

Any person knowing of or suspecting an event that could be an outbreak (including chemical contamination or single cases of highly unusual or virulent organisms or toxins) must urgently contact the Health Protection Team at the Directorate of Public Health. For an infection outbreak in DGRI/Galloway Community Hospital or in Community Hospitals, members of the Infection Control Team will be likely to be the first to be notified. They will, in turn, advise the Infection Control Doctor and the Health Protection Team.

Office hours:- Telephone 01387 272724 and ask to speak to the Consultant in Public Health Medicine (CPHM) responsible for communicable disease or the Nurse Consultant, or a nurse in the Health Protection Team.

Out of hours:- Telephone Dumfries and Galloway Royal Infirmary switchboard, 01387 246246. Ask for the person on-call for Public Health.

NHS D&G and HPS have agreed with their partners reporting mechanisms which include criteria ('triggers') for notification of certain types of potential incidents (such as water failures) requiring further investigation and risk assessment. The Public Health Act has established a framework and time frames for registered medical practitioners and diagnostic laboratories to notify the Health Protection Team (HPT) of diseases, organisms or health risk states. However, NHS D & G and HPS also have plans in place requiring that partner agencies report incidents when:

- Statutory agencies responsible for monitoring air, food and water quality, have information that indicates there may be a risk to public health; and
- Emergency services reporting incidents in which the public may be/have been exposed to harmful agents such as chemical spills.

In addition to the formal notifications system described above early identification of a threat to the public health may be identified through informal epidemiological intelligence based on excellent working relationships with local partners e.g. EHOs, GPs, clinicians but also with care homes, schools etc. This facilitates the possibility of early intervention and prevention of illness.

8.3 Identification and initial response

The occurrence of one or more of the events indicated above should alert the NHS board and in particular the CPH(M) to the possibility of an incident. Incidents, particularly those involving more than one NHS board area, may be recognised through the national surveillance system operated by HPS.

In certain circumstances e.g. an immediate response to a chemical incident, one or more agencies may have to take urgent action to protect the public before notifying NHS D&G. However, NHS D&G must be notified as soon as the initial control steps have been taken. This will allow NHS D&G to activate a multi-agency response to implement further measures to protect the public.

On recognition of one or more of these events, the CPH(M), NCHP or ICD as appropriate will ensure that

- all relevant agencies with a responsibility for the investigation and management of the incident are informed;
- steps are taken to gather further information about the cases and how they may have been exposed to the hazardous agent;
- an initial risk assessment is undertaken;
- if possible, a working hypothesis as to the cause of the incident is formulated;
- urgent control measures are put in place to protect public health (if necessary).

If the initial risk assessment indicates that there are cases of an illness which have significant public health implications and/or there is a probability of the public continuing to be exposed to an infective or other hazardous agent, steps should be taken to convene an IMT. Based on an initial risk assessment, NHS D&G should reach a view in conjunction with the partners about the need for specific control measures. These should be instituted as soon as possible and should not necessarily await the convening of an IMT if there is an urgent need to protect public health.

Some incidents may be over by the time they are reported or discovered. In this case the focus of the investigation will be on identifying the cause and on the prevention of a future episode. An incident may be limited in terms of size and clinical significance, e.g. an outbreak of norovirus in a care home. In such instances, it may not be necessary to convene an IMT. However, should the outbreak escalate or be a cause for concern, an IMT may be required.

Once the initial risk assessment has been carried out a decision should be made on how the risk is likely to be perceived by the public; how and when it should be communicated and the best medium for doing so. In exceptional circumstances, if there is a need for urgent preliminary communication, it is not necessary to wait for the IMT/PAG to meet. There may also be a need to involve the Scottish Government communications team depending on the nature and scale of the incident.

NHS D&G, once they have assessed that an incident is or may be occurring, will contact HPS and the appropriate team within the Scottish Government who will alert an appropriate Public Health

minister if appropriate. On receipt of an alert, HPS should agree with NHS D&G whether agencies other than those immediately engaged in the management of the incident, should receive an appropriate alert. This assessment should be based on the likelihood of the incident spreading to other NHS boards, of it receiving extensive media coverage likely to cause public concern or of it being of such a scale that mutual aid may be requested. HPS should indicate in the alert the level of response required by the receiving agencies:

- for noting - no action required;
- for action - monitoring only;
- for action - monitoring and wider dissemination to NHS; or
- for action - monitoring, wider dissemination and specific measures to be taken by recipient.

When appropriate, HPS will decide, in conjunction with SGHSCD and PHE, if an Early Warning Response System (EWRS) or International Health Regulations (IHR) notification may be required.

8.4 Investigation

From the information gathered from the initial investigation, it may be possible to form a working hypothesis about the route of exposure to the infective agent or the environmental hazard involved the source and level of that exposure, the nature and size of the population exposed or likely to be exposed, and the degree of risk to the public health. The IMT will then decide how to progress a fuller investigation to test the hypothesis.

The investigation should usually consist of three elements:

- an epidemiological investigation;
- an investigation into the nature and characteristics of the implicated hazard (in communicable disease incidents, this would be a microbiological investigation); and
- a specific investigation into how cases were exposed to the infective agent or other hazard (e.g. food supply and hygiene, hygiene in healthcare settings) to inform control measures.

Most incidents merit detailed description, and a descriptive epidemiological study of cases should be carried out.

The IMT should agree a case definition for the purpose of the incident and regularly review and revise this definition, as appropriate, throughout the incident investigation.

Standard surveillance forms should be available prior to the incident under investigation, and should be modified for the purposes of the incident. Information from individual cases should be collated preferably using an appropriate computer software package. Line listings and standard epidemiological output, e.g. epidemic curve, incidence rates and exposed populations, time line etc should be presented to the IMT. The working hypothesis may then need to be reviewed. Based on the outcome of the descriptive epidemiological investigation, the IMT may decide to carry out an analytical epidemiological study.

HPS is a resource which can provide expertise and support. It is essential to involve scientific, especially diagnostic laboratories, as early as possible in the investigation of an incident. The scientific specialist on the IMT should advise on the taking of appropriate specimens and arrange for relevant investigations. This should include liaison with the relevant reference laboratory in Scotland, or other specialist laboratories in the UK if necessary.

The public analyst should arrange for appropriate investigation of non-human samples e.g. food samples. It is essential that accurate results of tests are available as rapidly as possible to the IMT. The IMT should therefore consider carefully the best use of laboratory resources available, taking into consideration turn-around times for testing and reporting. The laboratory may need to prepare for a substantial increase in samples and plan for surge capacity. Guidance on the submission of clinical

samples should be a high priority and should be communicated to all relevant clinicians. As part of the incident investigation, the specialist should advise on the information required by the laboratory to ensure prompt identification of such samples and to distinguish them from other samples.

Specific investigations should be undertaken into the reasons for and circumstances in which cases were exposed to the hazardous agent implicated in the incident. This will often involve the taking of appropriate samples for microbiological or other laboratory testing. It also may involve tracing the likely passage of the agent causing illness from the most probable source of contamination or infection to the specific circumstances in which the case was exposed to it. NHS D&G and HPS should liaise with DGC and other agencies in ensuring that relevant protocols for this type of investigation are in place.

In the early stages of an investigation, the IMT members should consider whether a criminal investigation is likely to ensue. If so, the Crown Office should be consulted to provide appropriate guidance on evidential procedures required to enable progress but without jeopardising the investigation or control measures.

The IMT Chair and others within the IMT who have powers to conduct investigations with a view to potential future criminal proceedings should individually and collectively consider the implications of any potential criminal investigation at the outset. It is therefore essential that all IMT members and their respective organisations record and keep detailed and accurate records from the outset of any investigation. Instigating critical control measures should initially be the objective of the IMT collectively. The results of the epidemiological, microbiological and environmental investigation must be considered together before reaching a conclusion as to their significance to the control of the incident. This should be linked to previous knowledge of the illness involved and local circumstances. Considering the findings from each investigation singly may be misleading. IMTs should take care to assess where the findings may be coincidental. In particular the IMT should review associations which may be considered causal and assess whether there is evidence of bias in the investigation and/or the strength of a specific association.

8.5 Risk Assessment

Based on the findings from the investigation and an assessment of the effectiveness of control measures taken, the IMT should assess the ongoing risk to the public from exposure to the hazardous agent involved in the incident. The IMT may wish to reflect on principles within HIIAT for a risk assessment. The purpose of this assessment is two-fold, to assess:

- Whether exposure is ongoing, and
- the impact of exposure (numbers affected and severity).

Risk assessment essentially entails appraising the balance of evidence collected in the incident investigation and reaching a view as to whether it indicates that there is an ongoing significant threat to public health. The risk assessment should be dynamic and regularly reviewed e.g. at each IMT.

Points to consider in risk assessment:

- **Severity:** Dynamically assessed risk of the degree of foreseeable harm that may be caused to individuals or to the population and possible issues with recovery.
- **Confidence:** Knowledge, derived from all sources of information that confirm the existence and nature of the threat and the routes by which it can affect the population.
- **Spread:** The size of the actual and potentially affected population.
- **Interventions:** The availability and feasibility of population interventions to alter the course and influence the outcome of the event.

- **Context:** The broad environment, including media interest, public concern and attitudes, expectations, pressures, strength of professional knowledge and external factors including political decisions.

Conclusions derived from this process are principally a matter of professional judgement. However, for reasons of public accountability and understanding, it is essential that this process is as transparent as possible. The IMT should discuss and record the outcome of the risk assessments. Once the risk has been assessed, a decision should be made on how the risk is likely to be perceived by the public. This should inform the development of specific communications to the public about the risk and how it is being reduced.

8.6 Risk Management

8.6.1 Control measures to prevent further exposure

The principal objective of control measures is to reduce the risk to public health. Control measures may be directed at the source of the exposure and/or at affected persons to prevent secondary exposure to the agent.

Specific control measures will vary according to the type of incident. In summary they may include the following:

- advising specific groups or the general public on how to avoid and minimise risks e.g. advising condom use, preventing needle sharing, promoting safe food handling, avoid contaminated sites;
- delivering healthcare interventions to prevent the transmission or development of illnesses or their complications e.g. antibiotics, chemical antidotes, immunisation;
- implementing hygiene measures which reduce or eliminate contamination with hazards e.g. respiratory and hand hygiene, environmental decontamination, dust control measures;
- review the current standards of practice to identify areas for immediate improvement;
- curtailing normal daily activities or services e.g. excluding from school or nursery, closure of food preparation or retail premises, either through voluntary agreement or enacting regulatory powers, closing wards/care homes to admissions, limiting public access, identifying circumstances in which usual practices (agricultural, industrial, commercial) should be modified;
- food withdrawals or food warnings; and
- providing alternative arrangements for normal services e.g. drinking water supplies

A range of agencies may be involved in controlling an incident. Many of the measures taken have to be carried out within a legal or statutory framework. At times voluntary agreements will be sought with a range of parties implicated in the incident e.g. food business operators. Wherever possible these voluntary agreements should be recorded and if possible signed by both parties. It is important that professionals and the general public are provided with relevant information on the control measures being taken so that they can understand their relevance to their own safety/practice.

Control measures taken by one agency will have implications for those taken in another therefore it is essential that the IMT maintains an overview and co-ordinates such measures. When controls involve or have the potential to involve criminal proceedings, it is important that the local Procurator Fiscal's department is kept fully informed. The agency responsible for a specific control measure should check that the measure is being put in place in the time required and is having the desired impact as defined by the IMT, then report on this to the IMT.

8.6.2 Patient Assessment and Care Measures

A major public health incident can lead to significant pressure being placed on primary care and hospital services. It is important that in such instances the IMT establishes effective liaison with

senior managers of the NHS board, hospitals, pharmacists, GPs, Primary Care and Community Health services.

The IMT should request advice from clinical colleagues on the appropriate management of patients directly involved in the incident. Guidance on the clinical management of patients should be provided to Primary Care, Out of Hours Services, NHS 24 and hospital doctors.

The IMT may also need to consider the need to develop plans for the enhancement of specialist hospital based services; support arrangements for GPs and other primary care services; mechanisms to coordinate services between primary care and between and among different hospitals (if more than one is involved). The plan should also indicate arrangements for the admission of patients; the content of communications to professionals, patients and relatives; contact points for enquiries and infection control measures to prevent transmission in healthcare settings.

8.7 Risk Communication

8.7.1 General

NHS D&G will use the Health Protection Network guidance 'Communicating with the Public about Health Risks' to inform their risk communication strategy.
Risk communication is an essential part of the process of managing public health incidents. As the main issues to be covered in these communications generally concern hazards to public health, NHS D&G will take the lead in decision making on risk communication.

- Decision-making about communication of public health risks should be based on a presumption of openness. Not being open puts at stake the perceived trustworthiness of the agencies involved in managing risks.
- When communicating about risks, health agencies should be clear about the objectives they are pursuing, and identify any key issues which will influence the impact on the public from the communication.
- Plans for public health incidents should contain clear procedures for risk communication. 8.7.4 below gives examples.
- Communications should contain messages that are clear, relevant and timely, acknowledging uncertainties and should explain as far as possible the risk to the public in terms of probabilities and by comparing the current risk to others.
- The IMT should keep in mind the particular need for specific communications aimed at defined risk groups (e.g. people who are immuno-compromised, pregnant women), those with literacy difficulties or sensory deficits (hearing or vision), or for ethnic groups. In addition, the IMT should consider the need for advice to be available in different languages.
- Mechanisms should be in place to monitor the impact of communication on public perception e.g. monitoring the number and nature of calls to a helpline and the extent, content and tone of media coverage.

Decisions on risk communication should be recorded. Decisions not to communicate about actual or potential risks to the public health even when these are uncertain should be justified and recorded.
If an incident escalates significantly and there is a national response or SG emergency procedures are invoked it is likely that communication and handling will be discussed and agreed with SG

8.7.2 Communications Plans

NHS boards should have a communications plan which indicates how they will provide information about the incident and its control to the following key groups:

- the key agencies involved in managing the incident;
- professionals involved in diagnosing, treating, or advising patients who are, or could be cases of infection or toxic exposure;
- the general public and in particular the community directly affected by the incident;

- HPS and SGHSCD; and
- Contribute to multi-agency response via LRP/RRP structures, if appropriate

8.7.3 Intra and inter agency communications

If time allows the CPH(M)/NCHP should brief the relevant agencies likely to be involved in responding to the incident prior to the first IMT meeting. Information should be regularly updated as appropriate. NHS D&G will maintain a contact list (including out of hours arrangements) for representatives for all key agencies. NHS D&G will on notification, inform the Director of Public Health, senior management and the communication team. The relevant LA and HPS should be informed about suspected incidents. CPH(M)s should be informed of all hospital infection incidents (and will report to DPH), regardless of whether chaired by ICD or CPH(M). The IMT should discuss and agree the level to which briefings should be escalated within each relevant agency.

NHS D&G must notify suspected public health incidents to the SGHSCD, if possible prior to the first meeting of the IMT.

Notifications should be made to a SGHSCD representative (e.g. SMO or policy officer) in line with the protocol agreed with Scottish Government Ministers in 2007 (excluding all infection incidents and outbreaks in any healthcare premise for which separate arrangements apply, see Appendix B). The IMT should agree clear channels of communication and reporting lines at the first meeting. This should include a single channel of reporting in to SG. If the incident is thought to be the result of foodborne exposure, Food Standards Scotland (FSS) should be notified. SGHSCD should receive regular updates on the progress of the incident during working hours and out of hours. If the incident is related to a public drinking water supply, Scottish Water should notify the Drinking Water Quality Regulator (DWQR). SGHSCD and the DWQR should liaise to ensure a consistent message from the SG.

During an incident, a range of professionals working in diagnostic laboratories or clinical services will require information about the nature of the hazard, care arrangements, diagnostic testing, advice to the public, the scale of the incident and steps taken to control it.

NHS D&G will ensure the effective and timely sharing of information in-line with the Caldicott Guardian information management principles. Where e-mails are used, it should be ensured that secure email addresses are used for sensitive or patient identifiable data and alternative routes of communication are used for those e-mails which do not fulfil these criteria. However, it is important to appreciate that when investigating and managing an incident, colleagues may not be at their base so any urgent communication should still be by telephone. A loggist should be used to record all decisions, actions and communications.

Where deaths have or may have arisen as part of an incident, the IMT Chair should ensure that the Procurator Fiscal has been informed.

8.7.4 Communications with the public

To help allay any unnecessary public anxiety, communications should be made as early as possible in the management of the incident. This requires tested systems capable of rapid deployment that are ready for use prior to any incident occurring. The following mechanisms should be considered:

- face to face communication with affected individuals or groups e.g. patients, staff, general public at public meetings;
- the establishment of a special helpline provided by NHS 24;
- letters or fact sheets provided directly to patients, staff, members of the public in an affected healthcare setting or community;
- information in the form of statements, press releases, interviews and briefings for the print and electronic media (see section below);
- specially designed information leaflets to be distributed at appropriate points;
- social media can be used as a monitoring tool as well as for distributing messages;

- briefing key members of the public such as head teachers, MSPs, councillors, members of local health council.

Wherever possible, standard templates for communicating with the general public and the media should form part of planning for more common or potentially dangerous types of incidents. They should include standard press releases and 'question and answer' information sheets. These should require minimal customisation during incidents to facilitate speedy communication.
Examples of documentation used in previous incidents may be available on the SHPIR website under Incident Learning. In addition, each Regional Resilience Partnership has a multi-agency communications and media plan which fulfils statutory duty to warn and inform the public. During incidents and emergencies, partner agencies are used to working together and these networks and arrangements should be utilised to support public health led response.

NHS 24 can provide a range of services to support NHS boards which should be actively considered.

NHS 24 may be able to provide more extensive support in a major public health incident, based on the organisation's contact centre network, technology, voice infrastructure and contingency arrangements.

In some types of incident, private or public sector organisations implicated as probable sources of the exposure to a hazard will have existing lines of communication to their customers, clients or patients. At times, the organisation may form part of the IMT e.g. Scottish Water as described in the Scottish Waterborne Hazard Plan. Use of these lines of communication can often facilitate advising the public on how to reduce risks and to implement control measures to prevent exposure e.g. not drinking the water. In these circumstances, the IMT should liaise with the organisation in employing its knowledge and resources to communicate with public about risks. The IMT should co-ordinate the content and tone of any messages and how these should be disseminated.

NHS D&G will establish special helplines promptly e.g. via NHS 24. In some incidents, the public will look to contact a specific company or agency to obtain information about their services or products. In these instances, the IMT should liaise closely with the organisation about the measures it is taking to deal with customer enquiries while recognising that the mechanisms for doing so are best left to the company involved. It should be made clear however that the central public health message is the responsibility of the IMT.

The IMT should maintain an overview of all communications to ensure that there are no contradictions in their content or tone, or alternatively may set up or delegate a sub-group to manage the communication messages. The IMT Chair, or delegated deputy, has overall responsibility and should agree any suggestions/changes to external communications prior to their being distributed for comment or release

8.7.5 Media handling
The considerable extent of public, press and political interest in recent incidents highlights the importance of paying careful attention to this aspect of incident management. There is a need, in large-scale incidents, for a clear and proactive approach to media management and public relations especially by NHS boards. In view of the crucial interface with the media, media management will form an essential part of incident plans. NHS D&G and DGC Communications teams will be active members of the IMT. For larger incidents or incidents occurring out of hours HPS Comms team will be informed, and if required involved in the IMT. Actively engaging with the media and providing accurate and timely information may prevent inaccurate reporting and negative outcomes. Early implementation of RRP communication and media plans will assist effective coordination of media resources and messaging.

For all national and large-scale incidents, NHS boards and HPS should bear in mind that there will be a need to co-ordinate media activity closely with the Scottish Government communications team and partner agencies. SGHSCD will often refer media to the local NHS board for detailed information but it is important that key messages are co-ordinated.

There are two important roles that require to be fulfilled, that of media liaison and that of acting as spokesperson for the IMT.

To fulfil the first role, a member of the NHS board's communications team should liaise with the media to ensure that the information communicated to them is consistent and to organise arrangements for press briefings, interviews etc. He/she should be the identified communication team member acting in this capacity on behalf of all organisations involved in the IMT. The IMT Chair, or delegated deputy, would usually fulfil the second role i.e. be the 'public face' of the IMT. There may be situations when the communications team fulfils both roles.

If other professional opinions are sought from individual IMT members, these should not be given without the agreement of the IMT Chair and full liaison with the communications team. Whenever possible those from other organisations answering media enquiries should be members of the IMT.

In some instances, it may be desirable for other organisations represented on the IMT to respond to press enquiries which specifically relate to their operations or legal responsibilities. Arrangements should ensure that such organisations can respond promptly to such enquiries without straying from, or indeed contradicting the core message about the public health risks and the measures being taken to reduce them.

To avoid confusion, a common data set (e.g. on number of cases and their clinical status) and a timetable for its compilation and issue to the media should be agreed by the IMT. Decisions about media briefing, and the issuing of press statements, should be made at each IMT meeting. In doing so, careful consideration should be given to:

- background briefing material, e.g. role of the IMT, the general nature of the hazard or threat, what is known, and important facts which may not be known;
- the implications of releasing the information;
- the implications of the timing of the release;
- the importance of presenting complex information in simple language;
- and the different requirements of the print and broadcast media; and
- consideration given to use of more immediate social communication tools.

All press statements issued should be copied to the press offices of all organisations represented on the IMT, the SGHSCD and other relevant organisations.

8.8 *Incident evaluation, documentation and lessons learned*

A recurrent theme with public health incidents is the need to learn from experience. This involves three key components:

- A formal IMT debriefing on the management of the incident with a view to including lessons learnt in an IMT report. The debrief should take place as soon as possible after the incident. (If required/requested, the RRP can assist in facilitating the debrief process via the Learning & Development Coordinator, however as sponsor, the IMT remains the owner of the information and responsible for any further actions that may arise);

- An assessment of the performance of statutory agencies in managing public health incidents; and

- An evaluation of the effectiveness of incident management arrangements in protecting the public health.

Organisations' emergency planning / civil contingencies officers may be able to advise and assist with a multi-agency debrief for multi-agency incidents. The report resulting from the debrief would be handed over to the IMT chair. The IMT chair would retain ownership of the debrief report including lessons learned.
IMTs both during and in the debriefing following an incident should use criteria jointly agreed with their partners to assess and report on their own performance to the NHS board clinical governance committee in managing the incident and the appropriateness of current plans. Recommendations on how these can be improved should be included in a report prepared by the IMT for which the IMT Chair has the overall responsibility for producing.

The IMT should prepare a report and the IMT Chair has the overall responsibility for its production as illustrated in Table 1. The IMT report should be the product of agreement of all full members of the team. If this is not possible, the report should note areas of disagreement.

A template for the report is provided in Appendix H. The report should, in addition to describing the incident, consider the effectiveness of the investigation and the control measures taken. The report should include recommendations to prevent further incidents and improve the handling of further incidents and may include an identified need for further research.

Based on the results of the investigation, risk assessment and debriefing, the IMT should formulate targeted recommendations with timescales. The IMT Chair should ensure that the report and specifically the section dealing with the recommendations, is communicated to the targeted organisation. NHS D&G and HPS are responsible for monitoring whether IMT recommendations are followed up. NHS D&G should ensure that there is a response to the recommendation from that organisation for its implementation. If it has statutory responsibilities, it must reply to NHS D&G laying out its response to the recommendation.

In some instances, it may be necessary to delay or limit the circulation of the final report pending legal action. In such cases, appropriate legal advice should be sought.

The IMT Chair, in discussion with the IMT, should determine the most appropriate format for reporting the incident, e.g. full IMT report, SBAR, or hot debrief paper should also be completed for incidents where learning or recommendations have been identified for national consideration (Appendix F & G).

A full IMT report (a suggested template is provided in Appendix H) should be considered in the following situations:

- Significant lessons identified that should be shared locally or nationally;
- Actions required by other agencies to address problems identified;
- Novel infection, sources or pathways of infection;
- High mortality or morbidity;
- Changes required in guidance; or
- Significant public or political interest.

If the IMT Chair does not consider a full report is necessary then a summary of the incident should be provided in an SBAR (Situation, Background, Assessment, Recommendations) format. SBAR template is provided in Appendix F. The SBAR format can also be used for updates during the incident.

IMT reports should be sent for approval and endorsement to the NHS D&G Infection Control Committee. They may then decide who to share the report with e.g. SHPN, local authorities, SGHSCD etc. The reports should then be sent to the SHPN and made available to appropriate individuals, the LA, and the SGHSCD or other SG Directorate with responsibility for aspects of the outbreak/incident. Other relevant regulatory agencies should receive a copy.

The SHPN has agreed to maintain a central repository for IMT and SBAR reports and/or debriefs for public health incidents through the existing Scottish Health Protection Information Resource (SHPIR) website. The repository would be populated with new reports as they are published and IMT Hot Debrief reports as they are received.
The latter shall be used by NHS boards and HPS for any future outbreak/incidents in order to capture initial lessons learnt immediately as a "hot debrief," recognising that some IMT reports take months/years to be published.

NHS D&G is responsible for approving an action plan to follow up the recommendations contained in the report, (where this is required). The action plan should be appended to the copies of the report submitted to SGHSCD. If a recommendation has major policy implications or if the response from the agency to which an action is recommended is deemed by NHS D&G to be inadequate, NHS D&G should inform SGHSCD who will review the issue further.

In addition to an IMT report, all relevant incidents should be summarised in the appropriate standard summary form for submission in timely fashion to HPS for the purposes of incident surveillance.

9 Protocol Dissemination, Implementation and Monitoring

9.1 Dissemination and Implementation

This plan, once approved through the process defined below, will be placed on Beacon and on the Dumfries & Galloway Health protection and Screening Services Website. All key personnel to whom this plan applies will be informed of the reviewed policy by e-mail. Document control procedures will apply and the intranet copy of the document will always be considered the definitive copy.

10 Monitoring, Audit, Review and Approval

The Infection Control Committee is responsible for monitoring of implementation and compliance with this plan. The plan will be reviewed as a minimum every two years. An audit will be conducted to ascertain implementation and compliance of different aspects of the service. The reviewer of the plan will take responsibility for conducting this audit. Any changes as a result of audit and review will be consulted on for a period of four weeks. Following audit, review and consultation the Infection Control Committee will approve any new versions of the policy prior to dissemination and implementation.

11 Risk Management

This plan has been risk assessed. The overarching risk is that an unidentified incident may cause morbidity and even mortality. The other major risk is that that the IMT is not assembled at an early opportunity to ensure that the resources and expertise to manage the incident are in place. The likelihood of this is rare but consequences are major giving a risk rating of medium. A preventable incident may occur due lack of information from individuals who will not communicate with each other. Control measures can be implemented under the Public Health etc. (Scotland) Act 2008.

Appendix A – Contact telephone numbers

NHS Dumfries & Galloway

Health Protection/Public Health	**Telephone No**
Consultant in Public Health Medicine/EH	01387 272726
Nurse Consultant in Health Protection	01387 272703
Health Protection/Blood Borne Virus Nurse Specialist	01387 272788 or 272729
Interim Director of Public Health	01387 272755
Consultant in Public Health Medicine	01387 27273
Consultant in Public Health	01387 272747
Consultant in Dental Public Health	01387 272780
Public Health Fax Number	01387 272759
Health Protection/Public Health Administrator	01387 272724 or 272717

Microbiology/Infection Control

Consultant Microbiologist	01387 241532 or 241561
Infection Control Manager	01387 246246 Ex 34826
Infection Prevention & Control Nurses	01387 246246 Ex 33890, Ex 33275
Infection Control Administrator	01387 241627
Labs Secretary	01387 241560

DGRI Switchboard	**01387 246246**
A&E DGRI	01387 246246
A&E Galloway Community Hosp	01776 707710
NHS 24 HQ	0131 3004401

Dumfries & Galloway Council

DGC Environmental Standards (office hours)	01387 245991
Environmental Standards Stranraer	01776 705454
Environmental Standards any time/OOH	03033 333000
DGC Switchboard	03033 333000
DGC Chief Executive	01387 260001
DGC Emergency Planning Manager	01387 260123

Scottish Water

Scottish Water 24 hour contact	8456008855
Enquiry Line	08456018855
Scottish Water Public Health Scientist	07875872091

Health Protection Scotland

HPS Switchboard	0141 3001100
HPS toxic Incident advice line	0141 2822929
HPS Out of Hours	0141 2113600

Scottish Government Health Dept

Scottish Government Health Dept (SGHD) Switchboard	0300 2444000
Marine Scotland Duty Officer (ring SGHD)	
CMO/Senior Medical Officer PH Directorate	0131 2442681
CMO/Senior Medical Officer PH Directorate OOH	07824087787

Reference Laboratories

Scottish Haemophilus, Legionella, Meningococcus & Pneumococcus	0141 2018659
E.coli O157	0131 2421947
Scottish Parasite Diagnostic/Cryptosporidium	0141 2018667
Salmonella & C.Diff Reference Laboratory	0141 2018670
Cryptosporidium Reference Laboratory	0141 2018667
Gastrointestinal Infections/Foodborne Pathogens (PHE Colindale)	020 83277887
Virus Reference Department (PHE Colindale)	020 83276017 (office hours) 020 8200 4400 (Switchboard)

Other Useful Contact Numbers

Scottish Poisons Information Bureau (NHS professionals)	0344 8920111
Animal Health Divisional Office	01292 291350
Animal Health Scottish Government	0300 2449797
Food Standards Agency (Scotland)	01224 285100
Food Standards 24 hour Incident line	07881516867

DEFRA HELPLINE on 03459 33 55 77 or Rural (farming) helpline on 03000 200 301

NHS Board Health Protection Teams	Contact no.	Out of Hours
Ayrshire & Arran	01292 885858	01563 521133
Borders	01896 823396	01896 826000
Dumfries & Galloway	01387 272724	01387 246246
Fife	01592 226435	01383 623623
Forth Valley	01786 457283	01324 566000
Grampian	01224 558520	0345 4566000
Greater Glasgow & Clyde	0141 2014917	0141 2113600
Highland	01463 704886	01463 704000
Lanarkshire	01698 858232	01236 748748
Lothian	0131 4655420	0131 2421000
Orkney	01856 888034	01856 888000
Shetland	01595 743340	01595 743000
Tayside	01382 596987	01382 660111
Western Isles	01851 708033/01870 603366	01851 704704

Appendix B: Healthcare Infection Incident Assessment Tool (HIIAT)

The Healthcare Infection Incident Assessment Tool (HIIAT) should be used by the Infection Prevention and Control Team (IPCT) or Health Protection Team (HPT) to assess every healthcare infection incident i.e. all outbreaks and incidents (including decontamination incidents or near misses) in any healthcare setting (that is, the NHS, independent contractors providing NHS services and private providers of healthcare).

The HIIAT has two parts/functions:

Part 1: Assesses impact of a healthcare infection incident/outbreak on patients, services and public health.

The HIIAT should:

- be utilised to assess the initial impact and monitor any ongoing impact (escalating and de-escalating the incident/outbreak until declared closed).
- remain assessed **'Amber'** or '**Red'** only whilst there is ongoing risk of exposure, new cases, or until all exposed cases have been informed.

An individual member of the IPCT or HPT may undertake the initial assessment. If a PAG/ IMT is established then further assessments will be led by the chair of the PAG/IMT.

Part 1: Assessment.

Impact	Severity of illness	Services	Risk of transmission	Public Anxiety
Minor	Patients require only minor clinical interventional support as a consequence of the incident. There is no associated mortality as a direct result of this incident.	No or minor impact on services.	Minor implications for Public Health. Minor risk or no evidence of cross transmission or exposure	No or minor public anxiety is anticipated. No, or minimal, media interest: no press statement.
Moderate	Patients require moderate clinical interventional support as a consequence of the incident. There is no associated mortality as a direct result of this incident.	Moderate impact on services e.g. multiple wards closed or ITU closed as a consequence of the control measures	Moderate implications for Public Health. Moderate risk or evidence of cross transmission or ongoing exposure	Moderate public anxiety is anticipated. Media interest expected: prepare press statement
Major	**Patients require major clinical interventional support as a consequence of the incident and/ or** **Severe/life threatening /rare infection and/or** **there is associated mortality***	**Major impact on services e.g. hospital closure(s) for any period of time as a consequence of the control measures**	**Major implications to Public Health or Significant risk of cross transmission, of a severe/life threatening / rare infection or significant ongoing exposure**	**Major public anxiety anticipated.** **Significant media interest: prepare press statement**

Calculate the Impact: All Minor = **GREEN**; 3 Minor and 1 Moderate = **GREEN**;

No major and 2-4 Moderate = **AMBER**; Any Major = **RED**.

Part 2: Supports a single channel of infection incident/outbreak assessment and information reporting both internally within a NHS Board area and externally to Health Protection Scotland (HPS) and Scottish Government Health and Social Care Department (SGHSCD).

Part 2: Communication.

GREEN	AMBER	RED
Complete mandatory HIIAT Green reporting template and attach any prepared press statements. http://www.documents.hps.scot.nhs.uk/hai/infection-control/publications/template-hiiat-green.xlsx A HIIORT is only required when HPS support is requested Follow local governance procedures for assessing and reporting.	Report to HPS and complete HIIORT within 24 hours for onward reporting to SGHSCD. NHS board will be cited. Press statement (holding or release) must be prepared and sent to HPS. Request HPS support as required. Follow local governance procedures for assessing and reporting. Review and report HIIAT assessment as agreed between IMT and HPS (**at least weekly**) The HIIAT should remain Amber only whilst there is ongoing risk of exposure to new cases or until all exposed cases have been informed	Report to HPS and complete HIIORT within 24 hours for onward reporting to SGHSCD. NHS board will be cited. Press statement (holding or release) must be prepared and sent to HPS Request HPS support as required. Follow local governance procedures for assessing and reporting. Review and report HIIAT daily or as agreed between HPS and IMT (**a minimum of weekly**). The HIIAT should remain Red only whilst there is significant ongoing risk of exposure to new cases or until all exposed cases have been informed.

The final decision to release a press statement irrespective of HIIAT assessment (colour) is the responsibility of the IMT chair.

*** Only HAI deaths which pose an acute and serious public health risk must be reported to the Procurator Fiscal (**SGHD/CMO(2014)27**).**

The full manual is available at www.nipcm.hps.scot.nhs.uk/.

APPENDIX C – Draft agenda for IMT

1. Introduction (Reminder of confidentiality and need for accurate records)
2. Declarations of conflicts or vested interests
3. Items not on the agenda
4. Minute of last meeting (if applicable) including review of actions agreed
5. Incident/Outbreak Resume/Update:
    - General situation statement;
    - Patient report;
    - Microbiology/Toxicology report;
    - Environmental Health report;
    - Other relevant reports.
6. Risk Assessment:
    - **Severity:** Dynamically assessed risk of the degree of foreseeable harm that may be caused to individuals or to the population and possible issues with recovery.
    - **Confidence:** Knowledge, derived from all sources of information that confirm the existence and nature of the threat and the routes by which it can affect the population.
    - **Spread:** The size of the actual and potentially affected population.
    - **Interventions:** The availability and feasibility of population interventions to alter the course and influence the outcome of the event.
    - **Context:** The broad environment, including media interest, public concern and attitudes, expectations, pressures, strength of professional knowledge and external factors including political decisions.
7. Risk Management/Control Measures:
    - Patients;
    - General;
    - Public Health;
8. Care of Patients - Hospital and Community
9. Further Investigation:
    - Epidemiological;
    - Environmental;

- Microbiological / Toxicological.

10. Risk Communication:

    - Agree common data set;
    - Advice to public (letters, printed materials, media, social networking, websites, helplines etc);
    - Advice to professionals (GPs, clinical staff, other NHS boards, partners);
    - Media (print, radio, TV, websites, social networking sites);
    - Elected members;
    - Inform other authorities e.g. Procurator Fiscal.

11. Review (standing agenda items): Appropriate membership;

    - Resourcing;
    - Framework (incident management structure); consider need to seek support through LRP/RRP / other personnel;
    - Obtain contact details of all key personnel within and outwith hours;
    - Assess effectiveness of action;
    - Other resilience management groups formed or required;
    - Need to escalate (refer to Table 1).

12. Future activity (final meeting only - collation of documentation, possibility of future inquiries)

13. AOCB

14. Action list with timescale and allocated responsibility

15. Date and time of next meeting

APPENDIX D – IMT Decision Log

Time:	**Date:**
Name:	
Recorded by:	
Problem:	
Options: **A:** **B:** **C:** **D:**	
Outcome / actions:	
Rationale:	
Signature:	

APPENDIX E: Incident evaluation and reporting

Incident Preparedness

- Incident plans have been reviewed annually by NHS boards and their partners, especially LAs.
- Incident plans dealing with a major exposure to hazard e.g. food, waterborne, HAI, chemical and radiological incidents have been tested within a 3-year cycle i.e. utilised in an actual major outbreak or tested in an exercise. Such testing should include dealing with the deliberate release of hazardous agents
- Incident plans include up to date contacts for liaison out of hours, available expertise and possible IMT members - as related to incident, whether full members, co-opted or advisory level.
- Incident plans include an aide-memoir of the outline of the role of IMTs.
- The NHS board has documented systems and agreed criteria for being notified of and detecting potential or actual incidents.

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- Incident plans include an aide-memoir of the outline of the role of IMTs.
- The NHS board has documented systems and agreed criteria for being notified of and detecting potential or actual incidents.

Incident management

- In the event of an incident, the NHS board has undertaken an initial risk assessment and recorded:
    - whether there is a significant risk to public health;
    - scale of problem;
    - severity of problem;
    - possible cause of incident/outbreak;
    - initial actions to be taken and why.
- The IMT has kept records of decisions made about incident control measures and documented:
    - whether these measures have been applied; and
    - if not, the reason why;
    - if yes, by whom, when and where they have been carried out;
    - any further action arising from above.
- The IMT has reviewed the impact of control measures at each IMT meeting and documented its view on this.

- The IMT has reviewed the risk to public health arising from the incident and the likely overall impact of control measures on it.
- The IMT Chair has ensured that there is a check maintained on the above aspects of incident management and that this is recorded in the IMT minutes.
- The IMT Chair has regularly reported on the incident to relevant senior management of the LA and NHS board.
- The IMT has agreed a single press spokesperson and press officer who has regularly reported to the IMT on the tone and content of communications and responses to them.

After the incident

- The IMT Chair has conducted a hot debrief immediately at the conclusion of the response phase.
- The IMT Chair has arranged for a full debrief to be carried out and submitted the final IMT report to the NHS board or NHS board committee
- The IMT Chair has forwarded the report to SHPN and relevant organisations with responsibility for taking forward its recommendations.

APPENDIX F: SBAR Report

A tool for reporting incidents not requiring Full Incident Report

Issue	Statement
Situation • Causative agent • When and where incident detected and ended • Number of people involved • Organisation • Impact of health	
Background • How recognised • Context to Incident • Guidance	
Assessment • Descriptive epidemiology • Exposures and sources • Risks to public health • Control Measures • Communications	
Recommendation • What, who and when: • Prevention of similar events • What went well • What needs improved	
Name:	**Designation:**
Email:	**Tel:**

APPENDIX G: Hot debriefing template

This document should be completed by IMTs chair as soon as possible following the end of an incident in the interim before the full IMT report is produced. This is to capture initial lessons learnt immediately (a "hot debrief"), recognising that some IMT reports take months/years to be published.

Incident reference
Please provide a reference/title for this incident (e.g. Legionnaires outbreak in Lothian, 2012; or Outbreak of E. coli O157, Rose Lodge nursery, Aboyne)
Details of incident
Please provide a brief summary of incident:
What went well?
Please list aspects of the incident that were managed well.
What did not go well?
Please list aspects of the incident that were not managed well.
Lessons Learned
Please provide details of any learning or recommendations for national consideration:

IMT lead details	
Name:	Email:
Job Title:	Address:
Contact number:	Contact number (mobile):
Date:	Signed:

Completed templates to be returned to: SHPN-PMT-Submissions@nhs.net

APPENDIX H: IMT Report Template

1. Introduction

    - Brief summary of the incident and setting the scene.

2. Background

    - Information on features of cases, incubation period, dose, source and modes of exposure, diagnosis and treatment, and if relevant, prevalence of the relevant disease locally, nationally and globally.

3. Investigation

4. Epidemiological investigation and results

    - Descriptive: description of initial cases, case definition and hypothesis generation, enhanced surveillance

    - Analytical: description of any case control and/or cohort studies

5. Environmental investigation and results
    - Details of investigation/detection of main routes of exposure, sources of these, if possible levels of exposure and circumstances leading to exposure

6. Microbiological/Toxicological investigations and results

    - Clinical, food/water and environmental sampling undertaken

7. Risk Management

8. Prevention of further exposure to hazardous agent including details of relevant enforcement/regulatory action

9. Care of cases

10. Risk Communication

11. Discussion and conclusions

12. Lessons identified and recommendations

    Appendices (if necessary)

Full Incident Management Team Report Proposed Standardised Dataset

It is intended that the narratives and completed datasets will be held by the SHPN to facilitate on-going work to help prevent similar incidents and improving practice in incident management.

Incident Management	
Incident Management Team (IMT) lead	Name and job title, Board
Agencies represented on IMT:	
Date of first IMT meeting:	
Date of last IMT meeting:	
Number of IMT meetings held:	
Guidance used by IMT:	
Please record any other points on IMT:	
Incident Detection and Initial response	
Date of first notification of case(s)	
Date incident detected	
Description of how the incident was detected	
Description of the initial risk assessment response and communications:	
Please note any other points on Incident detection and initial response	

Type of Incident	
Causative Agent*	
Main presenting illness	
Main Primary Exposure(s)**	Food Water Air General Environment (i.e. when a hazard, usually chemical or radioactive, is widely dispersed e.g. in soil, water, in living matter and it is difficult to discern a specific exposure pathway). Person to person type e.g. sexual, respiratory, contact) Zoonotic Other (please describe)
Source(s) of exposure***	
Duration Of Incident	From: To:
Please note any other points on the type of incident	

*Causative Agent refers to the hazard (biological, chemical or radiological) which has been absorbed into and/or entered the cases and is prime cause of their illness.

**Exposure is used to describe the pathway through which a person/group/population has come into contact with the hazard which is the of disease or health state of interest. The main types of exposure are: food, water, air, person to person, zoonotic and general environmental. Exposure can be primary i.e. the original exposure leading to the hazard entering into or being absorbed by the index case or secondary i.e. consequential further exposures which are related to but may be different to the original

***Source of exposure relates to where the exposure has originated from.

Investigation			
Epidemiological Investigation			
Type(s) of Epidemiological investigation			
Final Case Definitions	Confirmed Probable Possible		
Number of cases by definition and sex			
Number of cases by definition and age			
Clinical status	Admitted:	ITU:	Deaths:
First and last date of onset by definition Epidemic curve appended?	Yes/No		

Areas of incident occurrence Mappings of cases appended?	Yes/No
Primary Exposures investigated	Food Water Air General Environment Person to person(type) Zoonotic Other(please describe)
Source(s) of exposures	
Secondary exposures investigated	
Other risk factors for illness	
Underlying medical conditions	
Further epidemiological investigations Report appended?	Yes/No
Key findings:	
Main conclusions	
Please note any further points on the epidemiological investigation	
Human Laboratory Investigation	
Diagnostic laboratories involved	
Reference laboratory involved	
Sampling and testing strategy Report appended	Yes/No
Causative Agent	
Strain/Genotype of micro-organism	
Dates of first and last positive results in confirmed cases by laboratory	
Further microbiological investigations Report appended	Yes/No
Key findings:	
Main conclusions	
Please note any further points on the laboratory investigation	

Environmental Investigation	
Agency leading investigation	
Other agencies	
Laboratories involved	
Investigation Strategy (including sampling & testing) Report appended	 Yes/No
Main exposure(s)	
Source and vehicle of exposure(s)	
Further epidemiological investigations Report appended?	 Yes/No
Key findings:	
Main conclusions	
Please note any further points on the environmental investigation	

Overall Summary from Investigation	
Key findings:	
Main conclusions	

Control Measures	
Objectives	

Prevention of primary exposure			
Exposure	**Measure**	**Onset and duration**	**Agency responsible**

Prevention of secondary and further exposure(s)			
Exposure	**Measure**	**Onset and duration**	**Agency responsible**

Prevention of ill health in those exposed			
Exposure	**Measure**	**Onset and duration**	**Agency responsible**

Treatment and care of cases			
Services	**Measure**	**Onset and duration**	**Agency responsible**
Primary care			
Secondary care			
Other			
Criteria for cessation of main control measures			

Summary	
Enforcement of compliance issues	
Evaluation of impact and achievement of objectives	
Main conclusions	

Communications	
Strategy	
Objectives	
Audience(s)	
Key content: Assessed risk to health	
Key content: Advice on risk reduction	
Main spokesperson(s)	
Method of assessing impact	
Communications made; Service	
Public Health (Scotland)	
Public Health (UK & Europe)	
Scottish Government	
General Practice	
NHS 24	
Out of hours & A&E	
Local authorities	
Secondary Care	
Others	
Communications made; public	
Cases and Contacts	
Affected communities	
Local Media	
National Media	
Helpline Publicity and specific health information	
Others	
Summary	
Evaluation of impact and achievement of objectives	
Main conclusions	
Antecedants of Outbreak	
What occurred to precipitate the outbreak?	
Were there any system failures which contributed to this?	
Were there any organisational or cultural issues contributing to these?	
What is the likelihood of a similar event occurring?	

What needs to be done to prevent this?	
Learning from Experience	
Organisational Arrangements	What worked well?
	What could be improved?
Investigation	What worked well?
	What could be improved?
Control measures	What worked well?
	What could be improved?
Communications	What worked well?
	What could be improved?
Please identify any updates to guidance that should be considered as a result of the incident	
Please identify any research that should be considered as a result of the incident	
Please identify any Workforce/ Education/Development priorities to arise as a result of the incident	

Recommended Actions Arising from the Incident

Recommended Actions should be set out as objectives using the `SMART` approach i.e. Specific, measurable, achievable, realistic, timed:

Specific – Be precise about the objective to be achieved.
Measurable – Quantify the extent of the action.
Achievable – Actions should not be an excessive burden on owners.
Realistic – Sufficient resources should be available to complete actions.
Timed – State the expected completion date.

Action No.	Description of action	Action owner	Complete by date

Report Approval

For completion by the Chair of the Incident Management Team	
Name:	**Designation:**
Signature:	**Date:**
Email:	**Tel:**

APPENDIX I: USEFUL INFORMATION

Council Emergency Centre

In the event that the demands of the Major Outbreak outstrip the facilities available at the Health Protection Team, Directorate of Public Health at Ryan South, Crichton Hall, and at the D&G Council Emergency Centre can be activated. This will usually require about one hour's notice in normal office hours and perhaps longer out of hours.

The request for this must come from the person leading the OCT/OST (Director or Consultant in Public Health Medicine/Chief Environmental Health Officer) and must be made to the Emergency Planning Officer at Dumfries & Galloway Council.

Interpreter Services

In the event that interpreter services are required in dealing with the media, NHS D&G and the Council Emergency Centre keep up-to-date lists of persons able and willing to act as interpreters. If needed other languages will be found by the Corporate Affairs Manager through contacts in other Health Boards.

The Police no longer hold a list of people willing to act as interpreters but informally or otherwise they use either; National Interpreting Services Alpha Translating and Interpreting Services 0141 333 9800 or 0131 558 9003 or Global Connections 0141 332 8889 to obtain interpreters on a formal and court acceptable basis.

Interpreters should always work in conjunction with the designated press officer and Consultant in Public Health Medicine and should only use approved material.

To access the NHS D&G interpreter services/lists contact the Senior Manager on Call (if out of hours) via 246246 or during office hours Communications Team on 01387 244510 or 246246 or directline ext 3510

To access the Police lists contact the Duty Officer at Police HQ on Tel: 252112.

In addition the Education Department of the Council also has lists of people who can provide interpreter services and the OCT/OST will access these as required/necessary.

Additional Telephone Services

It should not be necessary, in a staged use of the Council Emergency Centre, for additional telephones to be provided. In the unlikely event that they are the Communications Major for the Regional Emergency Scheme will be contacted. This should only be done under the Direction of the IMT.

Scottish Health Protection Information Resource (password protected)

Scottish Health Protection Information Resource (SHPIR) is intended to provide a distillation of the most current and relevant health protection advice and guidance material available for use in dealing with Health Protection issues and enquiries encountered both in daily practice and in an out-of-hours setting for Public Health/Health Protection staff involved in on-call work. The essential purpose of SHPIR is to provide a reliable and quality assured resource of first resort, for Health Protection staff in Scotland, particularly when rapid access is required to key documentation, advice, guidance and other information on Health Protection topics.

http://www.shpir.hps.scot.nhs.uk/login2.aspx?ReturnUrl=%2findex2.aspx

Incident Learning

Click "Incident Learning" on the SHPIR homepage to access the repository http://shpir/dotnet/SPHIRWeb/login2.aspx.

Scottish Government contact (non HAI incidents)

Office Hours: Senior Medical Officer on call **0131 244 2804**.

Out of Hours: on call mobile number **07824 087787**.

Healthcare Infection Incidents and Outbreaks

Please refer to Chapter 3 of the National Infection Prevention and Control Manual (NIPCM) http://www.nipcm.hps.scot.nhs.uk/.

The purpose of Chapter 3 is to support the early recognition of potential infection related issues, to minimise the risk of cross-transmission of infectious agents within health and other care settings; and outline the incident management process

Civil Contingencies

The Civil Contingencies Act 2004

Preparing Scotland

Food Standards Scotland

Food (Scotland) Act 2015

Guidance on the Investigation and Control of Outbreaks of Foodborne Disease in Scotland

FSS Incident Management Plan

Public Bodies Act

www.gov.scot/topics/health/policy/adult-health-socialcare-integration/about-the-bill

NHS (Scotland) Act 1978

http://www.legislation.gov.uk/ukpga/1978/29/contents

Public Health (Scotland) Act 2008

http://www.legislation.gov.uk/asp/2008/5/contents

Communicating with the Public about Health Risks – SHPN document

http://www.hps.scot.nhs.uk/pubs/Publication_Detail.aspx