For office use only: Case No.

Health Protection Scotland

Anthrax Questionnaire

NHS National Services Scotland

Please return completed questionnaire to:

Norah Palmateer

Health Protection Scotland
Meridian Court
5 Cadogan Street
Glasgow G2 6QE

Tel: 0141 300 1416
Fax: 0141 300 1170

If you have a query regarding anthrax among drug users, please contact:

Kirsty Roy
Email: Kirsty.roy@nhs.net
Tel: 0141 300 1173

David Goldberg
Email: David.goldberg2@nhs.net
Tel: 0141 300 1104

Guidance Notes for Completion of Anthrax Questionnaire

- This questionnaire is for use with confirmed and probable cases - see Appendix 1: Case definitions on page 27
- This questionnaire is in two parts:
  - **Part 1** (page 3 - 17) should preferably be completed by someone who has knowledge or experience of people who use drugs
  - **Part 2** (page 18 - 26) should be completed by someone who has access to the patient's clinical records
- Information in Part 1 should be obtained from a case or proxy - in the following preferred order
  - The case (if alive) or
  - If the case is deceased or otherwise unable to give a history, a proxy should be used in the following order
    - Someone who shared drugs with the case recently
    - Partner
    - Close friend
    - Family member
- Please return completed questionnaires within 5 days of interview, preferably as soon as possible.

Questionnaire developed by Health Protection Scotland and the Health Protection Agency

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Note to interviewer: please read the following paragraph to the respondent

The information that you provide in this questionnaire will be treated confidentially, although it is subject to normal legal requirements. The information will be held anonymously on a database; that is, your full name will be removed and only your initials, sex and date of birth will be held. We may have to share this information with the police if they request it. Health Protection Scotland may produce reports based on the information you provide, but it will not be possible for anyone to link anything in these reports to you. Health Protection Scotland is registered under the Data Protection Act and has an Information Security Policy to safeguard the collection, processing and storage of confidential information.

For interviewer:

Please sign below to confirm that you have read this paragraph to the respondent.

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Part 1 - Risk Factors and Behaviours

Form completed by:

Name: ☐

Designation/role: ☐

Contact number: ☐

Date of interview: D D M M Y Y Y Y

1	This information is taken from	The case ☐ 1 A proxy ☐ 2	→ **If taken from the case go to Q3**
2	If taken from a proxy, please state their relationship to the case, their name, and a contact number	Proxy name: ☐ Contact number: ☐ Relationship to case: ☐	
Section 1 - General information about the case			
3	Surname	☐	
4	First name	☐	
5	Gender	Male ☐ 1 Female ☐ 2	
6	Date of birth	D D M M Y Y Y Y	
7	Address	☐	
8	In the last month, have you been homeless, had no fixed address, or lived on the streets?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	

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Section 2 - General history of current illness

9	In relation to your current illness, when did you first start to feel unwell?	D D M M Y Y Y Y
10	Did you experience any of the following symptoms?	

Headache	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
Fever	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
Chills	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
Loss of appetite	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
Feeling out of sorts	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
Nausea	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
Diarrhoea (non-bloody)	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
Vomiting (non-bloody)	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
Bloody diarrhoea	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
Bloody vomiting	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
Abdominal pain	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
Leaking wound	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
Swelling around injection site/swelling of limbs	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
General swelling	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
Pain	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
Itching	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
Breathing Difficulties	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
Other (please describe below)	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888

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Section 3 - Potential exposures			
11	What is your occupation?	☐	
The following questions relate to the 2 weeks prior to onset of illness:			
12	Have you been involved in any activities that might expose wounds to soil e.g. gardening, renovation, DIY, camping, outdoor sports, recreational activities, etc., in the 2 weeks prior to illness?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	
13	Have you had any contact with livestock or with the body fluids of livestock in the 2 weeks prior to illness?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	
14	Have you had any contact with animal products such as untreated animal hair, wool, hides, or animal skin drums in the 2 weeks prior to illness?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	
15	Have you travelled away from home or overseas in the 2 weeks prior to illness?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	

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Section 4 - Smoking or snorting drugs

16	Have you ever smoked or snorted drugs?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	→ **If no/don't know, skip to Q27**
17	How old were you when you first smoked or snorted drugs?	☐☐ years old	
The following questions relate to the 2 weeks prior to onset of illness:			
18	Did you smoke or snort drugs in the 2 weeks prior to illness?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	→ **If no/don't know, skip to Q27**
19	Which of the following drugs did you smoke or snort in the 2 weeks prior to illness? (tick all that apply)	Heroin ☐ 1 Cocaine ☐ 1 Crack ☐ 1 Cannabis ☐ 1 Other (please specify below) ☐ 1 ☐	
20	Which drug did you smoke or snort **most often** in the 2 weeks prior to illness? (choose one)	Heroin ☐ 1 Cocaine ☐ 2 Crack ☐ 3 Cannabis ☐ 4 Other (please specify below) ☐ 5 ☐	
21	How often did you smoke or snort **heroin** in the 2 weeks prior to illness?	Less than once a week ☐ 1 About once a week ☐ 2 Several days a week (i.e. on 2-3 days) ☐ 3 Most days a week (i.e. on 4-6 days) ☐ 4 Once a day ☐ 5 2-3 times a day ☐ 6 4 or more times a day ☐ 7 Did not smoke/snort heroin ☐ 7777	

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22	In the 2 weeks prior to illness, on days when you smoked/ snorted **heroin**, how much did you smoke on a typical day?	☐☐ grams or ☐☐ wraps or ☐☐ bags Did not smoke/snort heroin ☐ 7777	
23	In the 2 weeks prior to illness, did you prepare your **heroin** for smoking any differently from usual?	Yes (please describe below) ☐ 1 No ☐ 2 Don't know ☐ 8888 ☐	
24	In the 2 weeks prior to illness, how many times did you use a pipe/platform for smoking that had previously been used by someone else?	☐☐ (If none, enter zero)	
25	In the 2 weeks prior to illness, how many times did you reuse your own pipe/platform for smoking before discarding it?	☐☐ (If none, enter zero)	
26	In the 2 weeks prior to illness, did you smoke/snort drugs outdoors?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	

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Section 5 - Injecting drugs

27	Have you ever injected drugs?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	→ **If no/don't know, skip to Q52**
28	How old were you when you first injected drugs?	☐☐ years old	
The following questions relate to the 2 weeks prior to onset of illness:			
29	Did you inject drugs in the 2 weeks prior to illness?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	→ **If no/don't know, skip to Q52**
30	Which of the following drugs did you inject in the 2 weeks prior to illness? (tick all that apply)	Heroin (by itself) ☐ 1 Cocaine (by itself) ☐ 1 Crack (by itself) ☐ 1 Heroin and cocaine/crack together ☐ 1 Speed (amphetamine) ☐ 1 Other (please specify below) ☐ 1 ☐	
31	Which drug did you inject **most often** in the 2 weeks prior to illness? (choose one)	Heroin (by itself) ☐ 1 Cocaine (by itself) ☐ 2 Crack (by itself) ☐ 3 Heroin and cocaine/crack together ☐ 4 Speed (amphetamine) ☐ 5 Other (please specify below) ☐ 6 ☐	

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32	How often did you inject **heroin** in the 2 weeks prior to illness?	Less than once a week ☐ 1 About once a week ☐ 2 Several days a week (i.e. on 2-3 days) ☐ 3 Most days a week(i.e. on 4-6 days) ☐ 4 Once a day ☐ 5 2-3 times a day ☐ 6 4 or more times a day ☐ 7 Did not inject heroin ☐ 7777	
33	In the 2 weeks prior to illness, on days when you injected **heroin**, how much did you inject on a typical day?	☐☐ grams or ☐☐ wraps or ☐☐ bags Did not inject heroin ☐ 7777	
34	In the 2 weeks prior to illness, into which parts of your body did you inject? (tick all that apply)	Arms ☐ 1 Hands ☐ 1 Legs ☐ 1 Groin ☐ 1 Feet ☐ 1 Other (please specify below) ☐ 1 ☐	
35	In the 2 weeks prior to illness, how often did you wipe the injection site with a mediswab/ alcohol/iodine before injecting?	Always ☐ 1 Mostly ☐ 2 About half the time ☐ 3 Occasionally ☐ 4 Never ☐ 5 Don't know ☐ 8888	
36	In the 2 weeks prior to illness, did you accidentally miss a vein while injecting and inject into the tissue (skin, fat, muscle) instead?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	

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37	In the 2 weeks prior to illness, did you inject into muscle on purpose?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	
38	In the 2 weeks prior to illness, did you inject into skin on purpose?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	
39	In the 2 weeks prior to illness, how many times did you use a needle/syringe that had previously been used by someone else?	☐☐ (If none, enter zero)	
40	In the 2 weeks prior to illness, how many times did you reuse your own needle/syringe before discarding it?	☐☐ (If none, enter zero)	
41	In the 2 weeks prior to illness, did you usually flush out your needles/syringes after injecting?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	
42	In the 2 weeks prior to illness, did you prepare your heroin for injecting any differently from usual?	Yes (please describe below) ☐ 1 No ☐ 2 Don't know ☐ 8888 ☐	
43	In the 2 weeks prior to illness, how many times did you use a spoon/cooker that had previously been used by someone else?	☐☐ (If none, enter zero)	

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44	In the 2 weeks prior to illness, how often, on average, did you heat your heroin until it bubbled?	Always ☐ 1 Mostly ☐ 2 About half the time ☐ 3 Occasionally ☐ 4 Never ☐ 5 Don't know ☐ 6 Did not inject heroin ☐ 7	
45	In the 2 weeks prior to illness, what did you use to filter your drugs? (tick all that apply) **Note to interviewer:** show pictures of filters in Appendix 3: Filter type images on page 30 as a prompt	Filter syringe ☐ 1 Roll-up type filter from a needle exchange ☐ 1 Roll-up filters bought from a shop ☐ 1 Sterifilt ☐ 1 Cigarette filter (from a pack of cigarettes) ☐ 1 Cotton bud ☐ 1 Other (please specify below) ☐ 1 ☐ Nothing ☐ 1	
46	In the 2 weeks prior to illness, how many times did you use a filter that had previously been used by someone else?	☐☐ (If none, enter zero)	
47	In the 2 weeks prior to illness, how many times did you reuse your own filter before discarding it?	☐☐ (If none, enter zero)	
48	In the 2 weeks prior to illness, did you need to use more acid than usual to dissolve your drugs?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	

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49	In the 2 weeks prior to illness, what did you use to dissolve your drugs? (tick all that apply)	Citric acid ☐ 1 Vinegar ☐ 1 Lemon juice (Jif) ☐ 1 Lemon juice (fresh) ☐ 1 Descaler crystals ☐ 1 Vitamin C ☐ 1 Other (please specify below) ☐ 1 ☐ Don't know ☐ 1	
50	In the 2 weeks prior to illness, where did you get your water for mixing or flushing from? (tick all that apply)	Water ampoule from needle exchange ☐ 1 Boiled water from a kettle ☐ 2 Straight from the tap ☐ 3 Toilet water ☐ 4 Puddle ☐ 5 Don't know ☐ 6 Other (please specify below) ☐ 7 ☐	
51	In the 2 weeks prior to illness, did you inject drugs outdoors?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	

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Section 6 - Heroin - purchase, storage and pooling

52	Thinking about the **heroin** that you used in the 2 weeks prior to illness – in which areas did you buy it? [please specify local area and city]	1. ☐ 2. ☐ 3. ☐ 4. ☐ 5. ☐ 6. ☐	
53	Have you noticed anything different about the **heroin** you used in the 2 weeks prior to onset of your illness, in terms of colour, consistency, or effect?	Yes (please describe below) ☐ 1 No ☐ 2 Don't know ☐ 8888 ☐	
54	In the 2 weeks prior to illness, where did you store the drugs that you have taken?	Indoors (please specify below) ☐ 1 ☐ Outdoors (please specify below) ☐ 2 ☐	
55	In the two weeks prior to illness, where did you store your used equipment (for smoking or injecting) before reusing it?	Indoors (please specify below) ☐ 1 ☐ Outdoors (please specify below) ☐ 2 ☐ Did not store equipment for reuse ☐ 7777	

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56	Is there a particular hit (from smoking or injecting) that you think caused your illness?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	→ **If no/don't know, skip to Q59**
57	If yes, did you share this heroin with anyone?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	→ **If no/don't know, skip to Q59**
58	How many people did you share it with?	☐☐ people	
Section 7 - Drug treatment history			
59	Are you currently receiving drug treatment for your drug dependence?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	→ **If no, skip to Q62**
60	Which treatment(s) for drug dependence are you currently receiving? (tick all that apply)	Methadone ☐ 1 Naltrexone ☐ 1 Buprenorphine (Subutex/Suboxone) ☐ 1 Benzodiazepines (e.g. diazepam, temazepam) ☐ 1 Detox ☐ 1 Other (please specify below) ☐ 1 ☐ None ☐ 1	
61	How long have you been on your current script?	☐☐ years ☐☐ months ☐☐ days	

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Section 8 - Alcohol consumption and smoking

62	In the last month, how often did you have a drink containing alcohol?	Never ☐ 0 Once a month or less ☐ 1 Twice a month ☐ 2 Once a week ☐ 3 2 -3 times a week ☐ 4 4 - 5 times a week ☐ 5 6 - 7 times a week ☐ 6	**→ If never, skip to Q64**
63	In the 2 weeks prior to your illness, were you ever under the influence of alcohol when injecting?	Yes ☐ 1 No ☐ 2 Did not inject in the last 2 weeks ☐ 7777	
64	Do you smoke tobacco?	Yes ☐ 1 No ☐ 2	**→ If no, skip to Q67**
65	How long have you been smoking for?	☐☐ years ☐☐ months ☐☐ days	
66	In the past year, how many cigarettes did you smoke on a typical day?	10 or less ☐ 1 11 - 20 ☐ 2 21 - 30 ☐ 3 31 or more ☐ 4	

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Section 9 - History of injecting site infections and co-morbidities			
67	Have you ever had a test for Hepatitis C?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	→ **If no, skip to Q70**
68	In which year did you last have a Hepatitis C test?	Y Y Y Y	
69	Would you mind telling me the result of your last test?	Have Hepatitis C ☐ 1 Cleared Hepatitis C ☐ 2 **(Note to interviewer:** confirm that the respondent had Hep C in the past but does not have it now**)** Do not have Hepatitis C ☐ 3 Awaiting results ☐ 4 Did not get result ☐ 5 Don't know/don't want to say ☐ 8888	
70	Have you ever had a test for HIV?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	→ **If no, skip to Q73**
71	In which year did you last have a HIV test?	Y Y Y Y	
72	Would you mind telling me the result of your last test?	Have HIV ☐ 1 Do not have HIV ☐ 2 Awaiting results ☐ 3 Did not get result ☐ 4 Don't know/don't want to say ☐ 8888	
73	In the last year, have you had a swelling containing pus (abscess), sore, or open wound at an injection site?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	

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74	In the last year, have you been hospitalised for any other problems (e.g. DVT, endocarditis, etc)?	Yes (please describe below) ☐ 1 No ☐ 2 Don't know ☐ 8888 ☐	
75	**a)** In the last year, have you had an overdose?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	→ **If no/don't know, skip to Q76**
	b) Did you receive care or help for an overdose from a doctor, nurse, paramedic or ambulance staff?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	
76	**a)** In the last month, where did you mainly get your (new and unused) equipment from?	Pharmacy exchange ☐ 1 Fixed site, specialist needle exchange ☐ 2 Mobile/Outreach/other exchange ☐ 3 Other people ☐ 4 Didn't get any new/unused equipment ☐ 5	→ **If didn't get any, Part 1 of the questionnaire is finished**
	b) In the last month, what equipment did you get? (tick all that apply)	Needle/syringes ☐ 1 Filters ☐ 1 Cookers/Stericups ☐ 1 Water ampoules ☐ 1 Equipment for smoking (e.g. foil, pipe) ☐ 1	

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Part 2 - Clinical Information

Information that follows to be obtained from clinical records/sources

Form completed by:

Name:	
Designation/role:	
Contact number:	
Date of interview:	D D M M Y Y Y Y

Clinical details:

Hospital	
Consultant	
Telephone number	
GP name	
GP address	
GP telephone number	

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Section 10 - Symptoms

77 Clinical signs at any time during presentation (tick all that apply)

General signs

a) Fever	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
b) Systemically unwell	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
c) Septic Shock	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
d) Oropharyngeal lesion	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
e) Hypotension	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
f) Sweating	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
g) Cyanosis (central/peripheral)	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
h) Meningeal signs	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
i) Altered consciousness	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
j) SIRS>2	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
k) Cough	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
l) Shortness of breath	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
m) Chest pain	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
n) Skin lesion	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
o) Hypoxia	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
p) Localised or generalised oedema	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888

78 Please give details of any other general signs and symptoms (please note section for signs associated with localised lesion can be found in Q81)

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79	Does the patient have a localised skin lesion?	Yes ☐ 1 No ☐ 2	→ **If patient does not have a lesion, skip to Q82**

80 Signs associated with localised lesion:

a) Pain	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
b) Tenderness	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
c) Oedema	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
d) Erythema	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
e) Eschar	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
f) Vesicles	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
g) Cellulitis	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
h) Lymphadenopathy	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
i) Lymphangitis	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
j) Visible injection site	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
k) Skin necrosis	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
l) Skin abscess	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888
m) Necrotising fasciitis	Yes ☐ 1	No ☐ 2	Don't know ☐ 8888

81 Please give details of any other signs associated with localised lesion

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Section 11 - Treatment history

Pre-hospital admission treatment

82	**a)** Irrespective of whether or not they were admitted to hospital, was the patient seen by a doctor (GP, A&E or both) on any day prior to admission	Yes ☐ 1 No ☐ 2	→ **If no, skip to Q83**
	b) If yes, were they prescribed any antibiotics?	Yes ☐ 1 No ☐ 2	→ **If no, skip to Q83**
	c) If yes, what date did they start to take antibiotics?	D D M M Y Y Y Y	
	d) If yes, what antibiotics (list all)		

Hospital admission history

83	**a)** Was patient hospitalised?	Yes ☐ 1 No ☐ 2	→ **If no, skip to Q88**
	b) If yes, date hospitalised	D D M M Y Y Y Y	
84	**a)** While in hospital, was the patient prescribed antibiotics?	Yes ☐ 1 No ☐ 2	→ **If no, skip to Q85**
	b) If yes, what date did they start to take antibiotics?	D D M M Y Y Y Y	
	c) If yes, what antibiotics (list all)		

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85	**a)** Was surgical debridement performed?	Yes ☐ 1 No ☐ 2	→ **If no, skip to Q86**
	b) If yes, dates of surgery	D D M M Y Y Y Y D D M M Y Y Y Y D D M M Y Y Y Y D D M M Y Y Y Y	
86	**a)** Was the patient admitted to intensive care?	Yes ☐ 1 No ☐ 2	→ **If no, skip to Q87**
	b) If yes, date admitted	D D M M Y Y Y Y	
	c) Date re-admitted (if applicable)	D D M M Y Y Y Y	
87	**a)** Was the patient given anthrax immunoglobulin (AIG)?	Yes ☐ 1 No ☐ 2	→ **If no, skip to Q88**
	b) If yes, on what date was the first dose given?	D D M M Y Y Y Y	
	c) How many doses have been given?	☐☐ doses	

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Section 12 - Samples taken for microbiology

88 What samples were obtained for microbiological diagnosis?

If no samples were taken, tick here ☐ 7777

Scottish NHS laboratory results

Test	Taken/sent to lab	Date sample taken	Laboratory name	Result
Blood for culture (isolate)	Yes ☐ 1 No ☐ 2	D D M M Y Y		
Blood for culture (gram stain)	Yes ☐ 1 No ☐ 2	D D M M Y Y		
Tissue	Yes ☐ 1 No ☐ 2	D D M M Y Y		
Swab	Yes ☐ 1 No ☐ 2	D D M M Y Y		
Wound swab	Yes ☐ 1 No ☐ 2	D D M M Y Y		
Other (please specify below) ☐	Yes ☐ 1 No ☐ 2	D D M M Y Y		

Please note that details of sample sent to Porton Down can be entered on the next page

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Reference (Porton Down) laboratory results			
Test	**Taken/sent to lab**	**Date sample taken**	**Result**
Blood for culture	Yes ☐ 1 No ☐ 2	D D M M Y Y	
Blood for PCR (EDTA tube)	Yes ☐ 1 No ☐ 2	D D M M Y Y	
Serum	Yes ☐ 1 No ☐ 2	D D M M Y Y	
Serum – toxin levels	Yes ☐ 1 No ☐ 2	D D M M Y Y	
Acute Serum – anti-toxin AB levels	Yes ☐ 1 No ☐ 2	D D M M Y Y	
Convalescent Serum – anti-toxin AB levels	Yes ☐ 1 No ☐ 2	D D M M Y Y	
Wound swab	Yes ☐ 1 No ☐ 2	D D M M Y Y	
Tissue	Yes ☐ 1 No ☐ 2	D D M M Y Y	
Other (please specify below) ☐	Yes ☐ 1 No ☐ 2	D D M M Y Y	

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Section 13 - Prior medical issues			
89	**a)** Does the patient have any chronic health conditions or any underlying conditions that could have led to immunosuppression (including for example HIV, Hepatitis C, Hepatitis B, TB, or any other chronic conditions such as diabetes, rheumatoid arthritis etc) or is he / she taking any immune – suppressive drugs (e.g. steroids, methotrexate, chemotherapy, drugs to prevent rejection post – transplant)?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	→ **If no/don't know, skip to Q90**
	b) If yes, please give details		
90	**a)** Is the patient on any prescribed medication (excluding methadone or other opiate substitutes)?	Yes ☐ 1 No ☐ 2 Don't know ☐ 8888	→ **If no/don't know, skip to Q91**
	b) If yes, please give details		

Section 14 - Final patient outcome/status			
91	Patient status	Discharged ☐ 1 Died ☐ 2	
92	Date died or discharged	D D M M Y Y Y Y	
93	**Additional Comments**		

Appendix 1: Case definitions

Confirmed case

A person with a clinical syndrome compatible with Anthrax (see Appendix 2: Clinical Presentations of Anthrax) AND one or more of the following:

- Growth of *Bacillus anthracis* from a clinical isolate confirmed by the reference laboratory
- Evidence of *Bacillus anthracis* DNA using PCR test methods on three target genes
- Demonstration of *Bacillus anthracis* in a clinical specimen by immunohistochemistry (IHC)
- Positive serology with a rising titre, on paired specimens, of antibodies to anthrax antigens consistent with seroconversion.

Probable case

A person with a clinical syndrome compatible with Anthrax (see Appendix 2: Clinical Presentations of Anthrax) AND one or more of the following:

- Single clearly positive result (raised titre) on a single serology specimen
- Paired serology results with either the same or decreasing titres
- Demonstration of specific anthrax toxin in the blood in the absence of any other toxin or reasonable clinical or microbiological explanation for such toxin being present

Possible case

A person with a clinical syndrome compatible with Anthrax (see Appendix 2: Clinical Presentations of Anthrax) including symptomatic individuals with an epidemiological link to a known confirmed or probable case.

Negative case

A case where all the epidemiological and microbiological investigations have been completed and no evidence was found to substantiate *Bacillus anthracis* as the cause of their illness.

Appendix 2: Clinical Presentations of Anthrax

Prior to the 2009/2010 outbreak which occurred mainly in Scotland, anthrax had only been described once in a person who injects drugs (PWID). In the Scotland outbreak, the pattern of presenting symptoms was very mixed. Cases did not generally present with the typical features of cutaneous anthrax; few had lesions that resembled the classical black crusted eschar normally associated with cutaneous exposure. Many cases presented with soft tissue infections and/or localised swelling, or features similar to necrotising fasciitis. Swelling was the commonest reported feature across all case types, followed (in confirmed cases) by pain, malaise and fever. Other cases presented with little or no localised signs of infection but with generalised symptoms suggesting disseminated infection and toxaemia. Some presented with marked abdominal pain, sometimes with other GI symptoms (nausea, vomiting, diarrhoea or rectal bleeding). Others presented with predominantly cerebral/CNS symptoms; severe headache, hallucinations, fitting, collapse, coma. Some died very rapidly after hospital admission or were found dead at home.

Due to the nature of the infection in heroin users, clinicians should consider the following as possible presentations of anthrax and discuss the case immediately with their local microbiologist.

1) Injection Anthrax

Where there is a history of recent injection use of heroin the following should be considered as possible presentations: Any PWID who presents with:

- Severe soft tissue infection, including necrotising fasciitis and cellulitis/abscess particularly if associated with oedema (often marked)
    - Signs of severe sepsis even without evidence of soft tissue infection
    - Meningitis (especially haemorrhagic meningitis) Also, be suspicious of heroin users who present clinically and/or with CT evidence suggestive of a subarachnoid haemorrhage or intracranial bleed.

2) Inhalation anthrax

Inhalational anthrax is a rarer form of classical presentation for anthrax associated with direct inhalation of spores into the lungs. There is a potential risk of inhaling anthrax spores from snorting or smoking heroin contaminated with anthrax spores. Symptoms may begin with a flu-like illness followed by respiratory difficulties and shock after 2-6 days

The signs and symptoms of inhalational anthrax include:

- Initial flu-like illness, progressing to severe respiratory difficulties and shock
- Chest x-ray signs – mediastinal widening, paratracheal fullness, hilar fullness, pleural effusions, parenchymal infiltrates
- Progressively enlarging, haemorrhagic pleural effusions are a consistent feature. The disease is often biphasic, with a prodrome of general malaise for 2-3 days, followed by a day or two of apparent remission before the full blown picture develops.
- Respiratory symptoms may also be accompanied by signs and symptoms suggesting meningitis or intracranial bleeding in the rapidly advancing stages of the disease process due to haematogenous spread.

3) Cutaneous (skin) anthrax

Few cases in the 2009-2010 outbreak had signs of classical cutaneous anthrax (normally the most common form). However, such typical skin lesions resulting from injection of spores remain a possibility, as do such lesions occurring from simply handling the contaminated heroin itself.

In classical cutaneous anthrax, a lesion normally appears on the skin: on the head, neck, forearms or hands. In injecting users it may be nearer to an injection site on a limb or in the groin area. This lesion starts as a small bump and develops into a characteristic ulcer with a black centre. Marked swelling (oedema) associated with the lesion is a classical finding. It is rarely painful, but if untreated, the infection can spread to cause blood poisoning (septicaemia or toxaemia). If untreated, the disease can be fatal in 5% of cases, but recovery is possible with prompt antibiotic treatment.

Other presentations:

4) Gastrointestinal anthrax

A very rare form of anthrax, usually associated with ingestion of contaminated food, resulting in severe gastrointestinal disease, fever and blood poisoning. Usually has an incubation period of 1-7 days.

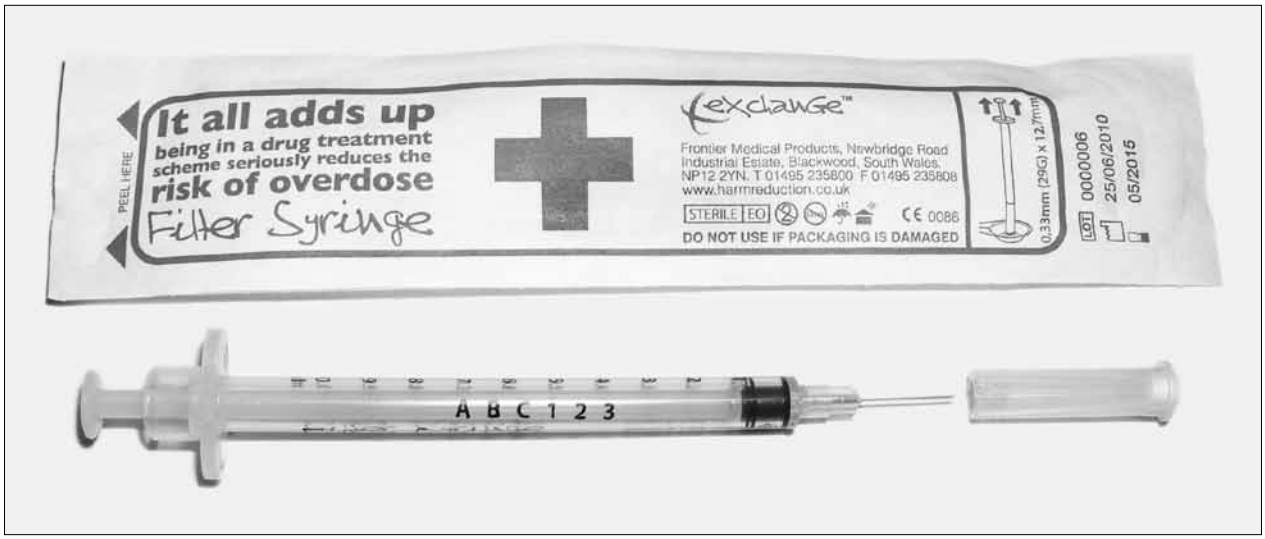
- Initial phase: symptoms include nausea, anorexia, vomiting and fever progressing to severe abdominal pain; haematemesis and diarrhoea that is almost always bloody; acute abdomen picture with rebound tenderness may develop; mesenteric adenopathy on CT scan likely. Mediastinal widening on chest X-ray has been reported.
- Subsequent phase: 2-4 days after onset of symptoms, ascites develops as abdominal pain decreases. Shock and death within 2 to 5 days of onset.

5) Oropharyngeal anthrax

Rarest form of anthrax. Usually has an incubation period of 1 to 7 days. Initial phase: fever and marked unilateral or bilateral neck swelling caused by regional lymphadenopathy; severe throat pain and dysphagia; ulcers at the base of the tongue, initially edematous and hyperaemic. Subsequent phase: ulcers may progress to necrosis; swelling can be severe enough to compromise the airway.

Appendix 3: Filter type images

Filter Syringe



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