Royal College of Physicians

Case ID:

For RCP use only:
☐☐/☐☐☐☐

National Review of Asthma Deaths (NRAD)

B1 Secondary care core data

FOR PATIENTS WHO WERE TREATED IN HOSPITAL IMMEDIATELY PRIOR TO DEATH

V2 300312

ABOUT THE NRAD

The NRAD team at the Royal College of Physicians (RCP) will collect data on all people who have died from asthma in the UK between ***1 February 2012 and 31 January 2013***.

The aim of the NRAD is to understand why people of all ages die from asthma so that recommendations can be made to prevent deaths from asthma in the future.

Your support in the completion of this form is extremely important. Participation in national audits and confidential enquiries provides you with high-quality evidence for appraisal, revalidation and continuing professional development (CPD) documentation. The RCP will provide you with a certificate to confirm your participation in this project. Please keep a record of the number of hours you contribute so that we can do this accurately.

PLEASE REFER TO FORM 1 – NOTIFICATION SUMMARY ENCLOSED FOR PATIENT DETAILS.
NRAD CASE ID: _ _/ _ _ _ _ (USE THIS CODE FOR ALL FUTURE CORRESPONDENCE).

HOW TO COMPLETE AND RETURN THIS FORM

- **Please read the Frequently Asked Questions section on the back of this form before completing.**
- Certain sections may not be applicable for all patients. Please read the relevant guidance before completing each question.
- Please ***complete all relevant questions***. If you are unable to answer any question, please indicate your reason clearly.
- Please complete the form using the information available in the patient's notes. Complete all dates in the format DD/MM/YYYY and times using the 24-h clock, eg 18.50.
- **If no data are recorded, or the information is missing or not known, please select 'Not recorded' or 'Not known' as applicable.**
- Please ***keep a copy of this form for your records***. Return hardcopies of complete forms to the NRAD team:

By email: rachael.davey@nhs.net
By mail (MUST BE SENT SECURELY AND MARKED AS CONFIDENTIAL):
NRAD, House 1, Royal College of Physicians,
11 St Andrews Place, London NW1 4LE

If you have any queries about completing or returning this form, please contact the NRAD team via nrad@rcplondon.ac.uk or telephone 020 3075 1500 or 1522.

DETAILS OF PERSON COMPLETING THIS FORM	
Name:_____	Trust:_____
Job Title/Role:_____	Telephone:_____
Hospital:_____	Email:_____

Please note that the NRAD project has approval from the National Information Governance Board (NIGB) under Section 251 of the NHS Act (2006) to collect patient identifiable information without consent. (Approval reference: ECC 8-02(FT2)/2011)

SECTION 1: PATIENT DETAILS

1.1 NRAD Case ID: _ _/ _ _ _ _

1.2 Age: *(eg 29 years 11 months)* ____ years ____ months ☐ Not known

1.3 Length of time patient registered with the hospital: ☐ Less than 1 year ☐ 1–3 years ☐ More than 3 years

SECTION 2: PREVIOUS MEDICAL HISTORY AND COMORDIBITIES

2.1 Patient had history of atopy: ☐ Yes ☐ No ☐ Not recorded
(eg eczema, hay fever, food allergy)

2.2 Patient had history of anaphylaxis: ☐ Yes ☐ No ☐ Not recorded

2.2.1 If yes, date last prescription for injectable adrenaline: __/__/____ *(DD/MM/YYYY)* ☐ Not recorded

2.3 Is there a record of any known precipitating or exacerbating factors of this patient's asthma? ☐ Yes → *Go to 2.3.1* ☐ No→ *Go to 2.4* ☐ Not recorded → *Go to 2.4*

2.3.1 If yes, what were these? *(tick all that apply)*

☐ Food allergy (eg dairy, eggs, nuts, fish)
☐ Animal allergy → *Go to 2.3.1.1*
☐ Hay fever/allergic rhinitis
☐ Virus infection/URTIs
☐ Drugs eg NSAIDS (prescribed or over the counter), aspirin or beta blockers (including eye drops)
☐ Exercise
☐ Other, *please specify* _____

2.3.1.1 If yes for animals, please specify

☐ Cat ☐ Dog
☐ Horse ☐ Other, *please specify* _____

2.4 COPD: ☐ Yes → *Go to 2.4.1* ☐ No→ *Go to 2.5* ☐ Not recorded → *Go to 2.5*

2.4.1 If yes, how was COPD diagnosed?

☐ Spirometry → *Go to 2.4.1.1* ☐ Not recorded
☐ Other, *please specify* _____

2.4.1.1 If spirometry, what was the:

FEV_1 % predicted ___% ☐ Not recorded
FEV_1/FVC ratio ___% ☐ Not recorded

2.5 Evidence of variable airflow obstruction? *(ie peak flow or FEV_1 changes before and after treatment at any time, or exposure to triggers like cold air, exercise or pets)* ☐ Yes ☐ No ☐ Not recorded

2.6 History of eosinophilia: ☐ Yes ☐ No ☐ Not recorded

2.7 History of response to asthma treatment: ☐ Yes ☐ No ☐ Not recorded

2.8 BMI (latest in the 12 months before death): _____ ☐ Not recorded

2.9 Any evidence of psychosocial or social factors that may have contributed to the patient's problems: ☐ Yes → *Go to 2.9.1* ☐ No→ *Go to 2.10* ☐ Not recorded → *Go to 2.10*

2.9.1 If yes, which? *(tick all that apply)*

☐ Depression
☐ Anxiety
☐ Psychiatric treatment in the last 12 months
(ie psychotropic medication, or care by a mental health team)
☐ Drug or alcohol abuse
☐ Deliberate self-harm
☐ Learning disability
☐ Social isolation/lived alone
☐ Other, *please specify* _____

2.10 Smoking history:

☐ Non-smoker → *Go to 2.11* ☐ Smoker → *Go to 2.10.1*
☐ Ex-smoker (stopped over 12 months ago) → *Go to 2.10.1*
☐ Ex-smoker (stopped in last 12 months) → *Go to 2.10.1*
☐ Not known

2.10.1 If smoker or ex-smoker, number of pack-years: _____
*(number of cigarettes/20)*number of years smoked*

2.11 Exposure to second-hand smoke: *(tick all that apply)*
☐ Exposed to tobacco smoke in the home ☐ Not known
☐ Exposed to tobacco smoke at work

2.12 Other non-asthma therapy, when started and indication: ☐ Yes→ *Go to 2.12.1* ☐ No → *Go to 2.13* ☐ Not recorded → *Go to 2.13*

2.12.1 If yes, please give details: *(Please list any NSAIDs, analgesics, beta blockers including eye drops) and provide printout of all other non-asthma drugs prescribed in the last 12 months).*

Drug	Indication	Date started
_____	_____	__/__/____ *(DD/MM/YYYY)*
_____	_____	__/__/____ *(DD/MM/YYYY)*
_____	_____	__/__/____ *(DD/MM/YYYY)*
_____	_____	__/__/____ *(DD/MM/YYYY)*
_____	_____	__/__/____ *(DD/MM/YYYY)*

2.13 Did the patient keep any animals? ☐ Yes → *Go to 2.13.1* ☐ No ☐ Not recorded

2.13.1 If yes, please specify: ☐ Cat ☐ Dog ☐ Horse ☐ Birds
☐ Hamster ☐ Rabbit ☐ Other, *please specify* _____

If patient was over 18 years, please → *Go to section 3*

FOR CHILDREN UNDER 18 YEARS ONLY

2.14 Was this child known to social services? ☐ Yes ☐ No ☐ Not known

2.15 Was this child a subject of an existing child protection plan? ☐ Yes ☐ No ☐ Not known

2.16 Please detail any other safeguarding issues you think may be relevant: _____

SECTION 3: ROUTINE ASTHMA APPOINTMENTS

3.1 Patient seen routinely (ie not acute) for asthma in the last 12 months: ☐ Yes → *Go to3.1.1* ☐ No→ *Go to 3.2* ☐ Not recorded → *Go to 3.2*
☐ *NA* ⍰ no history of asthma → *See FAQ 5*

3.1.1 If yes, how many times? _____ ☐ Not recorded

3.1.2 Date of last routine consultation for asthma: __/__/____ *(DD/MM/YYYY)* ☐ Not recorded

3.2 How many routine asthma follow-up appointments did this patient *miss* in the last 12 months: _____ ☐ Not recorded

3.2.1 If 1 or more missed appointments, date of last missed appointment: __/__/____ *(DD/MM/YYYY)* ☐ *Not recorded*

3.2.1.1 Please detail any action taken to try and contact the patient: *(tick all that apply)*
☐ Letter ☐ Phone call ☐ Nurse/doctor visit
☐ Other, *please specify* _____ ☐ Not recorded

SECTION 4: ASTHMA HISTORY (See FAQ 5)

4.1 Diagnosis

4.1.1 Date asthma diagnosed: __/__/____ *(DD/MM/YYYY)* ☐ *Not recorded*

4.1.2 How was asthma diagnosed? *(tick all that apply)*

Clinical history of:

☐ Recurrent symptoms
☐ Variable airflow obstruction
☐ Response to asthma medication
☐ Other, *please specify* _____

4.2 Severity *(Assumption based on the level of treatment required to control the person's asthma)*

4.2.1 Severity of asthma in the 12 months prior to death:

☐ Mild (BTS step 1)
☐ Moderate (BTS step 2–3)
☐ Severe (BTS step 4–5/ or admission last year or other criteria listed below)
☐ No history of asthma
☐ Not known
☐ No data/not recorded

Mild *On occasional relievers, or no asthma treatment*
Moderate *On regular inhaled asthma treatment and well controlled (ie not fulfilling severe category)*

Severe *Prescribed 4 or more **categories*** of asthma drugs OR patient had required hospital admission in last year OR needed oral steroids daily or more than 2 prescriptions for short courses of systemic steroids in the last year)*

**Categories*
1) Short-acting relievers
2) Inhaled steroids
3) Long-acting relievers
4) Leukotriene receptor antagonist (LTRA)
5) Theophylline/aminophylline
6) Regular oral steroid tablets
7) Anti-IGE drug/omalizumab (Xolair)

4.3 Type and ongoing care

4.3.1 Type of asthma: *(tick all that apply in categorising this patient's asthma)*

☐ Allergic asthma *(where there is specific allergic trigger for the patients asthma)*
☐ Late-onset asthma *(adult onset asthma with no previous history)*
☐ Brittle asthma *(Type 1: wide PEF variability (>40% diurnal variation for >50% of the time over a period of >150 days) despite intense therapy. Type 2: sudden severe attacks on a background of apparently well-controlled asthma) (BTS/SIGN definition)*
☐ Aspirin-sensitive asthma
☐ Occupational asthma
☐ Seasonal asthma
☐ Other, *please specify* _____

4.3.2 Who cared for this patient's asthma in the 12 months before death? *(tick all that apply)* ☐ Not known

☐ Respiratory physician
☐ General physician
☐ Respiratory paediatrician
☐ General paediatrician
☐ Specialist registrar (respiratory)
☐ Specialist registrar (not respiratory)
☐ Junior hospital doctor
☐ GP
☐ GP (GPwSI respiratory)
☐ Practice nurse
☐ Practice nurse (with asthma diploma)
☐ Nurse consultant (respiratory)
☐ Nurse consultant (non-respiratory/other)
☐ Respiratory nurse
☐ Respiratory nurse (secondary care)
☐ Paramedic
☐ A&E consultant
☐ Other, *please specify* _____

4.4 Current medication at the time of death

4.4.1 Short-acting reliever inhalers:

☐ Yes, *please specify* →
☐ No
☐ Not recorded

Name: _____
Device:
☐ pMDI (pressurised metered-dose inhaler)
☐ DPI (dry powder inhaler)
☐ via Easi-Breathe/Autohaler
Dose: _____ → *Go to 4.4.1.1*

4.4.1.1 How many prescriptions for short-acting beta agonist inhaler devices were prescribed in the last year? Please specify number of items: _____inhalers ☐ Not known

4.4.2 Inhaled steroid inhalers:
(single drug, not combination)

☐ Yes → *Go to 4.4.2.1* ☐ No→ *Go to 4.4.3* ☐ Not recorded → *Go to 4.4.3*

4.4.2.1 If yes, please specify:

☐ ***Fluticasone***	☐ ***Budesonide***	☐ ***Beclomethasone***	☐ ***Ciclesonide***	☐ ***Mometasone furoate***
☐ No	☐ No	☐ No	☐ No	☐ No
Dose: _____µg/day	Dose: _____µg/day	Dose: _____µg/day	Dose: _____µg/day	Dose: _____µg/day
☐ via nebuliser	☐ via nebuliser	☐ via nebuliser	☐ via nebuliser	☐ via nebuliser
☐ If pMDI, via spacer?	☐ If pMDI, via spacer?	☐ If pMDI, via spacer?	☐ If pMDI, via spacer?	☐ If pMDI, via spacer?
		☐ via Easi-Breathe/Autohaler		

4.4.2.2 How many prescriptions for inhaled steroid inhaler devices were prescribed in the last year? Please specify number of items: _____inhalers ☐ Not known

4.4.3 Inhaled steroid as a combined ICS/LABA preparation:
☐ Yes, *please specify* →
☐ No
☐ Not recorded

☐ Seretide Dose: _____
☐ Symbicort Dose: _____
☐ Fostair Dose: _____
☐ Other combination, *please detail*
_____
Dose: _____

4.4.3.1 How many prescriptions for combined ICS/LABA preparation devices were prescribed in the last year? Please specify number of items: _____inhalers ☐ Not known

4.4.4 Long-acting bronchodilators (LABA):
☐ Yes, *please specify* →
☐ No
☐ Not recorded

☐ Salmeterol Dose: _____
☐ Formoterol Dose: _____
☐ Other combination, *please detail*
_____
Dose: _____

4.4.5 Xolair (omalizumab):
☐ Yes, *please specify* →
☐ No
☐ Not recorded

Dose: _____

4.4.6 Methotrexate:
☐ Yes, *please specify* →
☐ No
☐ Not recorded

Dose: _____

4.4.7 Patient prescribed a spacer inhaler device:
☐ Yes ☐ No ☐ Not known

4.4.8 Leukotriene receptor antagonist (LTRA):
☐ Yes, *please specify* →
☐ No
☐ Not recorded

Name: _____
Dose: _____mg/day

4.4.9 Other oral asthma therapy:
☐ Yes→ Please specify
☐ No
☐ Not known

☐ Theophylline Name: _____ Dose: _____mg/day
☐ Systemic steroids Name: _____ Dose: _____mg/day
☐ Oral steroid Name: _____ Dose: _____mg/day

4.4.10 Patient had a nebuliser at home: ☐ Yes → *Go to 4.4.10* ☐ No → *Go to 4.5* ☐ Not known → *Go to 4.5*

4.4.10.1 If yes, date last serviced: __/__/____ *(DD/MM/YYYY)* ☐ *Not recorded*

4.5 Planned/booked asthma reviews (eg annual asthma check) (including inhaler technique)

4.5.1 Date patient's asthma was last reviewed before death: __/__/____ *(DD/MM/YYYY)* ☐ *Not recorded*

4.5.1.1 How was this done?
☐ Face to face
☐ By telephone
☐ Not known

4.5.2 Who was this by? ☐ Not known

☐ Respiratory physician
☐ General physician
☐ Respiratory paediatrician
☐ General paediatrician
☐ Specialist registrar (respiratory)
☐ Specialist registrar (not respiratory)
☐ Junior hospital doctor
☐ GP
☐ GP (GPwSI respiratory)
☐ Practice nurse
☐ Practice nurse (with asthma diploma)
☐ Nurse consultant (respiratory)
☐ Nurse consultant (non-respiratory/other)
☐ Respiratory nurse
☐ Respiratory nurse (secondary care)
☐ Other, *please specify* _____

4.5.3 Please detail the number of times that this patient's asthma was routinely reviewed in the last year (including the final review): ___ ☐ Not known

4.5.4 During the last asthma review there was: *(tick all that apply)*

☐ Increased dose of asthma medication
☐ Decreased dose of asthma medication
☐ Issue of an Written Asthma Action Plan*
☐ Modification of an Written Asthma Action Plan*
☐ A review of medication
☐ Inhaler technique checked
☐ A record of an assessment of asthma control *(eg using RCP 3Qs, ACT, GINA or another control tool)*
☐ Assessment of the patients adherence to medication
☐ Assessment of smoking status
☐ Other, *please specify* _____
☐ Not recorded

**Outlining features of worsening asthma and advice about action for the patient to take (eg increase medication, take oral steroids)*

4.6 Written Asthma Action Plan *(ie outlining features of worsening asthma and advice about action for the patient to take, eg increase medication, take oral steroids)*

4.6.1 Patient been provided with a Written Asthma Action Plan: ☐ Yes → *Go to 4.6.1.1* ☐ No → *Go to 4.6.2* ☐ Not recorded → *Go to 4.6.2*

4.6.1.1 If yes, date plan first issued: __/__/____ *(DD/MM/YYYY)* ☐ *Not recorded*

4.6.2 Date asthma plan last updated: __/__/____ *(DD/MM/YYYY)* ☐ *Not recorded*

4.6.3 Patient adhered to management suggestions:
☐ Very well
☐ Adequately
☐ Poorly → *Go to 4.6.3.1*
☐ No history of asthma
☐ No data/not recorded

4.6.3.1 If the patient's adherence to management was poor, were reasons for this addressed with the patient? ☐ Yes ☐ No ☐ Not recorded

Comments: _____

4.7 Peak expiratory flow (PEF)/spirometry readings

4.7.1 Record of PEF measurement in the last year: ☐ Yes → *Go to 4.7.1.1* ☐ No → *Go to 4.7.2* ☐ Not known → *Go to 4.7.2*

4.7.1.1 If yes, over the last year, highest and lowest PEF readings and variability last time it was measured: Highest: ___ l/min Lowest: ___ l/min ___ % ☐ Not recorded

4.7.2 Record of spirometry performed on this patient in the last year: ☐ Yes → *Go to 4.7.2.1* ☐ No → *Go to 4.8* ☐ Not known → *Go to 4.8*

4.7.2.1 If yes, what was the highest % predicted FEV_1 and what was the FEV_1 variability?
Highest: ___% pred FEV_1
Highest: ___ l/min Lowest: ___ l/min ___ %
☐ Not recorded

4.8 Inhaler technique

4.8.1 Inhaler technique checked in the 12 months before death:
☐ Yes → *Go to 4.8.1.1*
☐ No
☐ N/A – not using inhalers
☐ No data/not recorded

4.8.1.1 If yes, was this thought to be:

☐ Good ☐ Poor → *Go to 4.8.1.1.1*
☐ Initially poor, but improved with education ☐ No data/not recorded

4.8.1. 1.1 If inhaler technique was poor,

(i) was different inhaler prescribed, or ☐ Yes ☐ No ☐ Not known
(ii) was patient taught to use their original inhaler? ☐ Yes ☐ No ☐ Not known

4.9 History

4.9.1 Was this patient ever admitted to hospital for asthma before the fatal attack (excluding fatal attack)? ☐ Yes → *Go to 4.9.1.1* ☐ No → *Go to 4.9.2* ☐ Not known → *Go to 4.9.2*

4.9.1.1 If yes, number of times: ___ Comments: _____

4.9.1.2 Date of last admission to hospital: __/__/____ *(DD/MM/YYYY)* ☐ *Not recorded*

4.9.2 Was this patient ever admitted to ICU owing to asthma? ☐ Yes ☐ No ☐ Not known

4.9.2.1 If yes, number of times: ___

4.9.2.2 Date of last admission to ICU: __/__/____ *(DD/MM/YYYY)* ☐ *Not recorded*

4.9.3 Was this patient ever ventilated? ☐ Yes → *Go to 4.9.3.1* ☐ No → *Go to 5* ☐ Not known → *Go to 5*

4.9.3.1 If yes, number of times: ___

4.9.3.2 Date last ventilated: __/__/____ *(DD/MM/YYYY)* ☐ *Not recorded*

4.9.4 In the 12 months before death, how many times did the patient attend the A&E (ED) department for asthma? ___ times

SECTION 5: THE 'FINAL ATTACK' – SECONDARY CARE (for patients who died in hospital, including prison) (See FAQ 4)

5.1 Circumstances of death

5.1.1 During the final attack the patient died before any medical treatment could be administered: ☐ Yes ☐ Yes, but the patient tried to get help ☐ No ☐ No data/not recorded

5.1.2 Patient had been treated for another asthma attack in the month before death? ☐ Yes → *Go to 5.1.2.1* ☐ No → *Go to 5.1.3* ☐ Not known → *Go to 5.1.3*

5.1.2.1 If yes, was this:
(tick all that apply and enter start dates of attacks)

☐ In primary care __/__/____*(DD/MM/YYYY)*
☐ As a hospital inpatient __/__/____*(DD/MM/YYYY)*
☐ In an emergency unit/urgent care centre __/__/____*(DD/MM/YYYY)*
☐ By the patient/family (self-treatment) __/__/____*(DD/MM/YYYY)*

5.1.3 If treatment for the previous attack was NOT in this hospital, please give details of where this treatment took place and when:

Name of institution: _____

_____

_____

Postcode: _ _ _ _/ _ _ _ _

Date: __/__/____ *(DD/MM/YYYY)*

5.1.3.1 Address of where treatment took place: _____

5.1.4 Any atypical features surrounding death to suggest anaphylaxis:

☐ Sudden death ☐ Stridor ☐ Urticaria
☐ Angioedema ☐ History of food allergy resulting in anaphylaxis
☐ Other, *please specify* _____

5.1.4.1 What was the history/atypical feature? _____

5.1.4.2 Was a sample taken for mast cell tryptase? ☐ Yes → *Go to 5.1.4.2* ☐ No → *Go to 5.2* ☐ Not known → *Go to 5.2*

5.1.4.2.1 If yes, what was the result? _____

5.2 Date/time

5.2.1 Patient was treated in primary care for the final attack: ☐ Yes → *Go to 5.2.2* ☐ No → *Go to 5.3* ☐ Not known → *Go to 5.3*

IF THE PATIENT WAS INITIALLY TREATED IN PRIMARY CARE FOR THIS ATTACK:

5.2.2 Date of onset of symptoms:
(cough, wheeze, shortness of breath) __/__/____ *(DD/MM/YYYY)* ☐ *Not recorded*

5.2.3 Time of onset of symptoms:
(cough, wheeze, shortness of breath) __:__ *(24-h clock)* ☐ *Not recorded*

5.3 Events leading up to attack

5.3.1 Were there any possible precipitating or exacerbating factors in the final attack? ☐ Yes → *Go to 5.3.1.1* ☐ No → *Go to 5.3.2* ☐ Not known → *Go to 5.3.2*

5.3.1.1 If yes, what? *(tick all that apply)*

- ☐ Food allergy (eg dairy, eggs, nuts, fish)
- ☐ Animal allergy
- ☐ Hay fever/allergic rhinitis
- ☐ Virus infection/URTIs
- ☐ Drugs eg NSAIDS (prescribed or over the counter)
- ☐ Exercise
- ☐ Other, *please specify* _____

5.3.2 How many puffs of a rescue inhaler did the patient take in the 24 hours before death? ___ puffs ☐ Not known

5.3.3 Patient implemented their Personal Asthma Action Plan:
☐ Yes ☐ Did not have a plan
☐ No ☐ Not known

5.4 Timings of getting to medical help

5.4.1 What medical assistance was called for? *(tick all that apply)*

- ☐ Ambulance
- ☐ Called GP and was advised to go to hospital
- ☐ Called NHS Direct/NHS 24
- ☐ Went to GP surgery
- ☐ Called GP, but no appointment issued
- ☐ Teacher
- ☐ School nurse
- ☐ Other, *please specify* _____
- ☐ Not known

5.4.1.1 If help was called, time: __:__ *(24-h clock)* ☐ *Not recorded*

5.4.2 Patient taken to hospital: ☐ Yes → *Go to 5.3.1.1* ☐ No → *Go to 5.3.2* ☐ Not known → *Go to 5.3.2*

5.4.2.1 Route for referral to this hospital:

- ☐ 999 ambulance service
- ☐ Self/parental referral
- ☐ Telephone advice – NHS Direct
- ☐ GP surgery
- ☐ GP assessment unit
- ☐ Minor injury unit, *please specify* _____
- ☐ Other hospital, *please specify* _____
- ☐ Other, *please specify* _____
- ☐ Not known

5.4.2.2 Time of arrival to hospital: __:__ *(24-h clock)* ☐ *Not recorded*

5.4.2.3 Mode of arrival to this hospital:

- ☐ Road ambulance
- ☐ Private transport
- ☐ Taxi
- ☐ Public transport
- ☐ On foot
- ☐ Other, *please specify* _____
- ☐ Not known

5.4.3 Date and time first seen by health professional after onset of symptoms: __/__/____ *(DD/MM/YYYY)* ☐ *Not recorded*

__:__ *(24-h clock)* ☐ *Not recorded*

5.4.4 First professional(s) to see patient after onset of symptoms: *(tick all that apply)* ☐ Not known

- ☐ Respiratory physician
- ☐ General physician
- ☐ Respiratory paediatrician
- ☐ General paediatrician
- ☐ Specialist registrar (respiratory)
- ☐ Specialist registrar (not respiratory)
- ☐ Junior hospital doctor
- ☐ GP
- ☐ GP (GPwSI Respiratory)
- ☐ Practice nurse
- ☐ Practice nurse (with asthma diploma)
- ☐ Nurse consultant (respiratory)
- ☐ Nurse consultant (non-respiratory/other)
- ☐ Respiratory nurse
- ☐ Respiratory nurse (secondary care)
- ☐ Paramedic
- ☐ A&E consultant
- ☐ Other, *please specify* _____

5.4.5 Was resuscitation attempted?

☐ Out-of-hospital (tick if yes)

If yes, resuscitation was attempted by:

- ☐ Bystander
- ☐ Family member
- ☐ Paramedic
- ☐ Doctor/nurse

☐ In-hospital (tick if yes)

If yes, resuscitation was attempted by:

- ☐ Bystander
- ☐ Family member
- ☐ Paramedic
- ☐ Doctor/nurse

5.5 Classification of this attack

5.5.1 In the records, the fatal attack was originally classified as:

- ☐ Near fatal (as defined in the BTS/SIGN Guidelines)
- ☐ Life threatening (as defined in the BTS/SIGN Guidelines)
- ☐ Acute severe (as defined in the BTS/SIGN Guidelines)
- ☐ Brittle *(Type 1: wide PEF variability (>40% diurnal variation for >50% of the time over a period of >150 days) despite intense therapy. Type 2: sudden severe attacks on a background of apparently well-controlled asthma) (BTS/SIGN definition)*
- ☐ Moderate exacerbation
- ☐ Mild exacerbation
- ☐ No data/not recorded in medical records

5. 6 Management – final attack assessments

Please complete this section in as much detail as possible. (For the times the patient was assessed, please detail the first four and the final assessments from the start of this patient's assessment until the last known assessment before the patient died).
(Please provide copies of any reports (eg SEAs, SUIs, audit reports))

Tick which apply	☐ **Initial treatment**	☐ **Reassessment (1)**	☐ **Reassessment (2)**	☐ **Reassessment (3)**	☐ **Final assessment before death**
5.6.1 Dates/times (DD/MM/YY)/24-h clock	Date __/__/____ Time __:__ ☐ Not known	Date __/__/____ Time __:__ ☐ Not known	Date __/__/____ Time __:__ ☐ Not known	Date __/__/____ Time __:__ ☐ Not known	Date __/__/____ Time __:__ ☐ Not known
5.6.2 Confusion	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known
5.6.3 Level of consciousness	GCS scale __ (1–15) ☐ Alert ☐ Drowsy ☐ Semi-conscious ☐ Unconscious ☐ Not recorded	GCS scale __ (1–15) ☐ Alert ☐ Drowsy ☐ Semi-conscious ☐ Unconscious ☐ Not recorded	GCS Scale __ (1–15) ☐ Alert ☐ Drowsy ☐ Semi-conscious ☐ Unconscious ☐ Not recorded	GCS scale __ (1–15) ☐ Alert ☐ Drowsy ☐ Semi-conscious ☐ Unconscious ☐ Not recorded	GCS scale __ (1–15) ☐ Alert ☐ Drowsy ☐ Semi-conscious ☐ Unconscious ☐ Not recorded
5.6.4 Exhaustion	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known

5.6.5 Speech	☐ Normal ☐ Short sentences ☐ Single words ☐ Unable to talk ☐ Not recorded	☐ Normal ☐ Short sentences ☐ Single words ☐ Unable to talk ☐ Not recorded	☐ Normal ☐ Short sentences ☐ Single words ☐ Unable to talk ☐ Not recorded	☐ Normal ☐ Short sentences ☐ Single words ☐ Unable to talk ☐ Not recorded	☐ Normal ☐ Short sentences ☐ Single words ☐ Unable to talk ☐ Not recorded
5.6.6 Signs					
	Initial treatment	**Reassessment (1)**	**Reassessment (2)**	**Reassessment (3)**	**Final assessment before death**
5.6.6.1 Pulse rate	___/min ☐ Not known	___/min ☐ Not known	___/min ☐ Not known	___/min ☐ Not known	___/min ☐ Not known
5.6.6.2 Respiratory rate	___/min ☐ Not known	___/min ☐ Not known	___/min ☐ Not known	___/min ☐ Not known	___/min ☐ Not known
5.6.6.3 PEF	___l/min ___**%** best ☐ Not known	___l/min ___**%** best ☐ Not known	___l/min ___**%** best ☐ Not known	___l/min ___**%** best ☐ Not known	___l/min ___**%** best ☐ Not known
5.6.6.4 SpO_2 pulse oximetry	___**%** ☐ Not known	___**%** ☐ Not known	___**%** ☐ Not known	___**%** ☐ Not known	___**%** ☐ Not known
5.6.6.5 PaO_2	___kPa ☐ Not known	___kPa ☐ Not known	___kPa ☐ Not known	___kPa ☐ Not known	___kPa ☐ Not known
5.6.6.6 $PaCO_2$	___kPa ☐ Not known	___kPa ☐ Not known	___kPa ☐ Not known	___kPa ☐ Not known	___kPa ☐ Not known
5.6.6.7 Serum potassium	___mmol/l ☐ Not known	___mmol/l ☐ Not known	___mmol/l ☐ Not known	___mmol/l ☐ Not known	___mmol/l ☐ Not known
5.6.6.8 pH	___ ☐ Not known	___ ☐ Not known	___ ☐ Not known	___ ☐ Not known	___ ☐ Not known
5.6.6.9 Blood pressure	___Syst/ ___Diast ☐ Not known	___Syst/ ___Diast ☐ Not known	___Syst/ ___Diast ☐ Not known	___Syst/ ___Diast ☐ Not known	___Syst/ ___Diast ☐ Not known
5.6.6.10 Spirometry done	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known
5.6.6.10.1 If spirometry was done, what was the FEV% predicted?	___**%** Pred. ☐ Not known	___**%** Pred. ☐ Not known	___**%** Pred. ☐ Not known	___**%** Pred. ☐ Not known	___**%** Pred. ☐ Not known
5.6.6.11 Chest X-ray	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known
5.6.6.11.1 If yes, describe	☐ Normal ☐ Pneumothorax ☐ Consolidation ☐ Lobar collapse ☐ Other *Specify* ______	☐ Normal ☐ Pneumothorax ☐ Consolidation ☐ Lobar collapse ☐ Other *Specify* ______	☐ Normal ☐ Pneumothorax ☐ Consolidation ☐ Lobar collapse ☐ Other *Specify* ______	☐ Normal ☐ Pneumothorax ☐ Consolidation ☐ Lobar collapse ☐ Other *Specify* ______	☐ Normal ☐ Pneumothorax ☐ Consolidation ☐ Lobar collapse ☐ Other *Specify* ______

5.6.6.12 Examination

	☐ Initial treatment	☐ Reassessment (1)	☐ Reassessment (2)	☐ Reassessment (3)	☐ Final assessment before death
5.6.6.12.1 Wheezing	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known
5.6.6.12.2 Cyanosis	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known
5.6.6.12.3 Pathological Arrhythmia	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known
5.6.6.12.4 Use of accessory muscles	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known
5.6.6.12.5 Normal chest examination	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known
5.6.6.12.6 Silent chest	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known	☐ Yes ☐ No ☐ Not known

5. 7 Management – final attack (drugs) (Please provide copies of any reports (eg SEAs, SUIs, audit reports))

5.7.1 Patient was administered a short-acting beta agonist bronchodilator:

☐ Yes → *Go to 5.7.1.1* ☐ No → *Go to 5.7.2* ☐ Not known → *Go to 5.7.2*

5.7.1.1 If yes, first dose at:

__/__/____ *(DD/MM/YYYY)*

__:__ *(24-h clock)* ☐ Not known

5.7.1.2 Please state the route of administration: *(tick all that apply)*

☐ Spacer inhaler plus pMDI ☐ Nebuliser (air driven)
☐ Nebuliser (oxygen driven) ☐ Dry powder inhalers (DPI)
☐ pMDI alone(*pMDI=pressurised metered-dose inhaler)

5.7.1.3 Drug name and the dose:

☐ Salbutamol (eg Ventolin) ☐ Terbutaline (eg Bricanyl)
☐ Other, *please specify)* _____
Dose: _____µg

5.7.1.4 Was this continuous?

☐ Yes ☐ No ☐ Not known

5.7.2 Patient administered an antimuscarinic bronchodilator eg ipratropium bromide (Atrovent):

☐ Yes → *Go to 5.7.2.1* ☐ No → *Go to 5.7.3* ☐ Not known → *Go to 5.7.3*

5.7.2.1 If yes, first dose at:

__/__/____ *(DD/MM/YYYY)*

__:__ *(24-h clock)* ☐ Not known

5.7.2.2 Please state the route of administration: *(tick all that apply)*

☐ Spacer inhaler plus pMDI ☐ Nebuliser (air driven)
☐ Nebuliser (oxygen driven) ☐ Dry powder inhalers (DPI)
☐ pMDI alone(* pMDI= pressurised metered dose inhaler)

5.7.2.3 Drug name and the dose:

☐ Ipratropium bromide
Dose: _____µg/mg _____

5.7.3 Patient administered systemic steroids (including oral or IV): ☐ Yes → *Go to 5.7.3.1* ☐ No → *Go to 5.7.4* ☐ Not known → *Go to 5.7.4*

5.7.3.1 If yes, first dose at: __/__/____ *(DD/MM/YYYY)* __:__ *(24-h clock)* ☐ Not known

5.7.3.2 Please state the route of administration: *(tick all that apply)* ☐ Oral tablets ☐ Dispersible tablets ☐ Systemic injection

5.7.3.3 Drug name and the dose: Drug: _____ Dose: _____

5.7.4 Patient administered oxygen: ☐ Yes → *Go to 5.7.4.1* ☐ No → *Go to 5.7.5* ☐ Not known → *Go to 5.7.5*

5.7.4.1 If yes, first dose at: __/__/____ *(DD/MM/YYYY)* __:__ (24-h clock) ☐ Not known

5.7.4.2 Flow rate: _____l/min ☐ Not known

5.7.4.3 Concentration: _____% ☐ Not known

5.7.4.4 Device: ☐ Nasal speculum ☐ Mask Type of mask: _____

5.7.5 Patient administered adrenaline: ☐ Yes → *Go to 5.7.5.1* ☐ No → *Go to 5.7.6* ☐ Not known → *Go to 5.7.6*

5.7.5.1 If yes, first dose at: __/__/____ *(DD/MM/YYYY)* __:__ (24-h clock) ☐ Not known

5.7.5.1 Dose and route of administration:

☐ Auto-injector (by health professional or carer) Dose: _____
☐ Intramuscular Dose: _____
☐ Intravenous Dose: _____
☐ Self administered auto-injector Dose: _____
☐ Other, *please specify* _____ Dose: _____

5.7.6 Patient administered intravenous aminophylline ☐ Yes → *Go to 5.7.6.1* ☐ No → *Go to 5.7.7* ☐ Not known → *Go to 5.7.7*

5.7.6.1 If yes, first dose at __/__/____ *(DD/MM/YYYY)* __:__ (24-h clock) ☐ Not known

5.7.7 Patient administered a leukotriene receptor antagonist: ☐ Yes → *Go to 5.7.7.1* ☐ No → *Go to 5.7.8* ☐ Not known → *Go to 5.7.8*

5.7.7.1 If yes, first dose at: __/__/____ *(DD/MM/YYYY)* __:__ (24-hr clock) ☐ Not known

5.7.8 Patient administered any intravenous fluids: ☐ Yes → *Go to 5.7.8.1* ☐ No → *Go to 5.7.9* ☐ Not known → *Go to 5.7.9*

5.7.8.1 If yes, first dose at: __/__/____ *(DD/MM/YYYY)* __:__ (24-h clock) ☐ Not known

5.7.9 Patient administered magnesium (Mg): ☐ Yes → *Go to 5.7.9.1* ☐ No → *Go to 5.7.10* ☐ Not known → *Go to 5.7.10*

5.7.9.1 If yes, first dose at: __/__/____ *(DD/MM/YYYY)* __:__ (24-h clock) ☐ Not known

5.7.9.2 Was the Mg repeated? ☐ Yes ☐ No ☐ Not known

5.7.10 Assisted ventilation initiated: ☐ Yes → *Go to 5.7.10.1* ☐ No ☐ Not known

5.7.10.1 If yes, was this: ☐ NIV ☐ CPAP ☐ Intubation

5.7.10.2 Was the patient mechanically ventilated? ☐ Yes ☐ No ☐ Not known

Additional space for further information *(please indicate which question number you are referring to)*

Please include copies of any reports/audits/significant event analyses that resulted from this death

PLEASE PHOTOCOPY THIS FORM AND KEEP A COPY FOR YOUR RECORDS BEFORE RETURNING TO THE NARD OFFICE AT THE RCP. POSTAL/EMAIL DETAILS CAN BE FOUND AT THE FRONT OF THIS FORM.

FREQUENTLY ASKED QUESTIONS

1. What are the case inclusion criteria?

The NRAD are being notified by clinicians and the Office for National Statistics (ONS) and the National Records of Scotland (NRS) as per the inclusion criteria below. Every death from asthma in the UK meeting the inclusion criteria below during the 1-year study period (**1 February 2012 to 31 January 2013)** will be included:

- Death certified as being due to asthma (ICD-10 J45–J46) in ***Part I*** of the Medical Certificate of Cause of Death (MCCD)
- Post-mortem diagnosis of asthma as cause of death
- Clinical diagnosis of asthma as the probable cause of death
- Death certified as being due to anaphylaxis (ICD-10 T78.2)

Additional inclusion criteria (data obtained the ONS or NRS)

- ONS classification of asthma as underlying cause of death (ICD-10 J45–J46) OR
- ONS classification of anaphylaxis as underlying cause of death

2. Why have I been asked to complete information on this patient when asthma only appeared in Part II of the death certificate?

ONS/NRS use information from both Parts I and II of the death certificate to assign the underlying cause of death code (ICD-10U) (see examples below). ONS/NRS use information from both Parts I and II of the death certificate to assign the underlying cause of death code (ICD-10U) (see examples below) as per the WHO mortality coding rules set out in volume 2 of the ICD-10 instruction manual. A pdf version of the 2010 manual is available at http://www.who.int/classifications/icd/ICD10Volume2_en_2010.pdf.

As the underlying cause of death has been coded as asthma (J459), this patient has met one of the inclusion criteria for the project and therefore further information is required.

Example 1:
Information provided on death certificate:
1a Severe bronchopneumonia
2 Severe aortic stenosis, CCF (congestive cardiac failure), renal failure, asthma
ICD-10 coding from the ONS:

ICD-10U	ICD-10	ICD-10	ICD-10	ICD-10	ICD-10
J459	J180	I350	I500	N19	J459

Example 2:
Information provided on death certificate:
1a Old age
2 Asthma, vascular dementia

ICD-10 coding from the ONS:

ICD-10U	ICD-10	ICD-10	ICD-10
J459	R54	J459	F019

3. I really don't think asthma was the cause of death – do I still need to complete the forms?

Yes please – as one of the purposes of the project is to assess the reliability of diagnosis of asthma as cause of death, we'd like to be able to have as much information as possible for our confidential enquiry panel assessors to decide why the underlying cause of death code of asthma was assigned to this patient. Please therefore do the following.

- Indicate the likelihood of asthma being, or contributing to, the cause of death in the relevant sections of Form 1 and complete as much detail as you have on the forms we sent you as possible.
- Please *send copies of consultation records/correspondence/all prescriptions* for the last year, and detail any medication the patient was on at the time of death as per the enclosed *'checklist of documentation required'.* In particular, we are interested in whether the asthma treatment was modified as part of the treatment for other morbidities, such as pneumonia.

4. What if the patient did not have a 'fatal attack'?

We have assumed that, if asthma has been determined as a possible underlying cause of death, then asthma was implicated in the death. *Please detail the most recent asthma attack* the patient had before death. This may have been recorded as an exacerbation or an 'episode of uncontrolled asthma'. For the purposes of this work, we are assuming that asthma attacks in the 4 weeks before death may be relevant to our enquiry. So please detail as much as you can on the forms and provide more in the free-text section at the end of the forms.

5. What if I don't think the patient had asthma in the first place?

If asthma has been considered as a possible cause of death on the certificate, we assume that someone considered the patient had asthma. We also assume that the person had been treated with asthma medication. So we will need details of *copies of consultation records/correspondence/all prescriptions* for the 12 months leading up to the death, and as much detail on the forms as possible. Many patients who are treated with asthma medication do not have a formal diagnosis entered in their records and this is clearly relevant to our work, so please do complete the forms in as much detail as you are able.

6. What if I am unable to complete certain sections of the form owing to lack of information?

Please complete as many sections as you can with the information you have available to you. Please also return as much of the other information required as per the enclosed checklist of documentation required.

7. Do I need to anonymise the notes?

No, you do not need to anonymise the notes prior to returning them to us –the NRAD team will be anonymising all case notes returned. It is essential that, during the preparation of case notes, all staff identifiers are removed BUT the designation is retained or, where missing, added. Therefore, please ensure that all staff identified in the notes are entered on this list with their designation at time of care given, where possible.

8. I am a clinician in a hospital – do I also have to contact the GP for any details I'm not sure of?

No, you do not need to contact the GP. We have made contact with the patient's GP requesting the relevant information. In the event that we are unable to obtain details of who was the patient's GP, we may contact you to ask for the contact details.

9. I am from a care home – what do I need to do with this information?

Please pass the enclosed information to the doctor(s) or (the relevant clinical staff member) who cared for this patient to complete the relevant data collection forms.

10. Is completion of these forms mandatory?

It is not mandatory, however:

- the NRAD is a National Audit and a National Confidential Enquiry
- the NRAD is now part of the Quality Accounts (2012/2013) and therefore we encourage trusts to participate as part of this
- participation in national audit and confidential enquiries is also detailed as one of the requirements by the General Medical Council in its document 'Good Medical Practice' (Para 14, items g and c) for maintaining and improving performance: '*You must work collaboratively with colleagues and patients to maintain and improve the quality of your work and promote patient safety. In particular, you must contribute to confidential enquiries and adverse event recognition and reporting, to help reduce risk to patients'.*
- the NRAD is a project commissioned by the Department of Health and has the support of a number of professional and lay organisations (including the RCGP). Please see the full list at www.rcplondon.ac.uk/nrad