# Clinical Audit System – CYANS Specific Data

This guide explains how to add data to the CYANS Clinical Audit System (CAS) to support the measurement of CYANS Key Performance Indicators (KPI's). There is a separate general CAS guide which explains how to access CAS and add/find patients.

# Patient Consent

We have a legal basis to capture patient data for the purposes of audit and quality improvement which means there is no requirement to gather patient consent. The CYANS network website displays the privacy notice which will provide further information.

### **Key Performance Indicators**

Data collection in CAS is designed to enable the evaluation of the following KPI's:

- 1. % of children and young people diagnosed with confirmed or suspected anaphylaxis who have had the likely trigger for the episode identified.
- 2. % of patients who were directly referred to their local allergy service by the admitting team or where the admitting team have confirmed that an existing allergy care follow up is in place. Note: a referral to or follow-up with General Paediatrics may be counted as meeting this indicator. Being advised to see a GP, sent home with advice or similar does not fulfil this indicator.
- 3. % of children and young people diagnosed with confirmed or suspected anaphylaxis prescribed an adrenaline auto injector at the correct dose.
- 4. % of children and young people diagnosed with confirmed or suspected anaphylaxis given a management plan on discharge. *Note: a valid management plan needs to be written or printed and should be the BSACI Management Plan or local equivalent.*
- 5. % of children and young people diagnosed with confirmed or suspected anaphylaxis that were prescribed an adrenaline auto injector who were given auto injector training.
- 6. % of children and young people diagnosed with confirmed or suspected anaphylaxis that were given auto injector training and received a management plan.
- 7. % of children and young people diagnosed with confirmed or suspected anaphylaxis where IM adrenaline was administered at an appropriate dose.

### **Overview of Data Recording**

Almost all of the data required to support the CYANS KPI's is recorded on the Core Dataset screens (covered on pages 4-8). If all of the data is available users may enter this in a single session or may choose to use the edit function (see page 9) to enter data relating to the same event across multiple data entry sessions. If fields which relate to KPI's are left blank, then they will be interpreted as either 'don't know' or 'no' as appropriate when KPI reports are produced.

The weight of the patient at the time of the anaphylaxis event is required to determine whether the correct adrenaline auto injector dose was prescribed. Weight cannot be recorded on the Core Dataset screens therefore users are asked to record this via the Encounters screen (see page 3).

This guide and screenshots only details the specific data fields users are asked to record to support the CYANS network KPI's. CAS can hold many other data items and users are free to utilise any fields which they feel might support their work locally but they are not required as part of the CYANS annual KPI reporting.

# Patients who should be added to CAS

The CYANS KPI's apply to any events in children where symptoms and signs suggest anaphylaxis, particularly where treated as such.

CYANS guidance defines anaphylaxis as a severe, life threatening generalised or systemic hypersensitivity reaction. Characteristically sudden in onset with rapid progression of symptoms.

Since "life threatening" appears to be interpreted differently by different individuals, please include any probable allergic reaction where there are airway, breathing or circulation signs or symptoms:

Airway	Breathing	Circulation
Hoarse voice	Shortness of breath	Pallor, clamminess
Stridor	Wheeze on auscultation	Decreased conscious level,
		including sudden drowsiness
Sensation or appearance of	Whistling type noises with	Floppiness in infants
choking	breathing	
Significant tongue swelling	Cyanosis (e.g. sats <92%)	Hypotension
Difficulty swallowing	Tachypnoea	Marked tachycardia
	Respiratory arrest	Cardiac arrest
	Persistent cough	

[Resuscitation council, CYANS, BSACI/RCPCH allergy action plan]

Note that "wheeze" has varying meanings as used by the general public, although patients with asthma would hopefully differentiate the sound produced by bronchospasm from other respiratory noises e.g. crackles.

Be cautious about including patients with throat tightness symptoms alone, however, some degree of associated breathing difficulty would be sufficient to consider adding the patient to CAS.

As per BSACI guidance, the diagnosis is usually evident from history, and cases can be included even in the absence of supporting observations e.g. blood pressure, oxygen saturation, wheeze. An elevated acute serum tryptase level is helpful, but diagnosis is primarily clinical.

Acute wheeze episodes due to animal hair exposure etc. would not be considered systemic and therefore not anaphylaxis. However, if associated with cardiovascular symptoms a reaction to aeroallergens could be included.

# Recording details of the anaphylaxis event

Recording weight at the time of the event

If the weight of the patient at the time of the anaphylaxis event is known then this should be recorded if the patient was prescribed an adrenaline auto injector. To record this, find your patient then:

	TEST PATIENT, Thisisa		Born 11-Nov-1911 (108y) Gende	ər <b>Male</b> CHI No. 1111111111
	59 Testpatients Street, Unknowr	Contact 0141 111 1	111 🔷 Known allergi	ies / alerts 🛞
1. Click <b>Encounters</b>	Patient Treatment Centre <u>Demographics</u> <u>Centrels</u> <u>Centritions</u>	gow Update Patient Status Cemerbidice Encounters Results	Medications Interventions Family History	Update
	Filter Options Treatment Centre Encounter Type All E	reatment Centres	▼ ▼	
2. Click <b>Add</b>				
	Start Date Treatment Centre	Encounter Type Patien	t Attendance Summary of Encounter	

The Encounter Details screen will open. To complete the screen:

1. <b>Start Date</b> is the date of the anaphylaxis event	Encounter Details - En Treatment Centre Start Date	t <mark>er New Encounter</mark> RHSC Glasgow 02/12/2019	time: 00 💌 : 00 💌		2	
2. Yellow Fields are mandatory. Select Anaphylaxis Event Data	Patient Attendance Encounter Type Encounter Reason Encounter Outcome 2	Anaphylaxis Event Dat New Select options	a	• Add Outcome		3. Select <b>New</b> from the drop down
	End Date Summary of Encounter		? Tests Requested	đ	? ?	
5. Enter <b>Weight</b> in kg. This should be weight <b>at the time</b> of the anaphylaxis event	Advice or Information Gi Patient Height (m) Patient Weight (kg) Patient Head Circumfer BMI Bone Age (yrs)	iven?	? Clinicians ? x ? ? ? ? ?	<u>Details</u> ◀ NR 2e (cm): NR	Details Weight (kg): 21.5 BMI: NR	4. Click <b>Details</b> to reveal extra fields
	Father's Height (m) Mother's Height (m)	0.000 0.000 <u>Close</u>	?		Save <del>Cancel</del>	6. Click <b>Save</b>

#### Record details of the anaphylaxis event (Core Dataset)

There are several data items to record about the anaphylaxis event. All of these are recorded via the **Core Dataset** screen and are described on the following pages. You may choose to record some details at a later date (see the **Editing anaphylaxis event details** section on page 9). When you have finished recording for this session remember to click **Save** or you will lose your work. To access the **CYAN Dataset Details** screen:

	TEST PATIENT, Thisisa	Во	m 11-Nov-1911 (108y) Gender Male CH/ No. 111111111
	59 Testpatients Street, Unknown	Contact 0141 111 1111	Known allergies / alerts
1. Click <b>Core Dataset</b>	Patient Treatment Centre RHSC Glasgow V	Update Patient Status Encounters Results Medications	Update     Urdetereitors Framy result;     Core Dataset Audt
2. Click <b>Add</b>	Date Of Event Location Of Event IM Adren	aline Administered Management Options	

First record the date of the anaphylaxis event – this will also help you locate your data should you need to review or edit it later. To record the date of the event:

	CYAN Dataset Details - Add Datas	et	
1. Click General	General Signs & Symptoms	Trigger Allergen Emergency Treatment	IM Adrenaline History
	Management		
	Anaphylaxis Event Suspected Anaphylaxis Event Confirmed	Yes No	
2 Date of Event is	Event History		
the date of the	Date Of Event	► 02/12/2019 ×	
anaphylaxis event	Co-Factors	Select an Option	Φ
	Location Of Event	Select an Option	Φ
	Time Between Trigger and Reaction	Select an Option	\$
Tip: You may click <b>Save</b> at any time to close this screen and			
save your work			Save Cancel
save your work			Save Cancel

#### Signs and Symptoms

The signs and symptoms that suggest or indicate anaphylaxis should be recorded as a minimum, other signs/symptoms are optional. There is a Signs & Symptoms tab in the Core Dataset screen. To record signs and symptoms:

	CYAN Dataset Details - Edit Dataset	
1. Click Signs &	General Signs & Symptoms Trigger Allergen Emergency Treatment IM Adrenaline History	
Symptoms	Management	
	Signs & Symptoms	
2. Click any box to	Airways Select options	
reveal the drop-	Breathing 1 selected	
down	Circulation	ie <b>'x'</b> to hide
	Skin Symptoms	down
3 Tick one or more	Gastrointestinal	
items	Neurological Add	
items	Other Recession	
	Persistent Cough	
	~	
	Save Cancel	
	CYAN Dataset Details - Edit Dataset	
	General         Signs & Symptoms         Trigger Allergen         Emergency Treatment         IM Adrenaline History	
	Management	
	Signs & Symptoms	
	Airways Select options ÷	
	Breathing 1 selected * Add 5 Itoms of	an ho
	Circulation Select options *	the dron-
	Skin Symptoms Select options New Skin Symptom	by typing
	Gastrointestinal Select options	x and
	Neurological Select options * Add clicking A	dd
	Other	
	^	
Tin: You may click		
Save at any time to	✓	
close this screen and		
save vour work	Save Cancel	
Surc your work		

#### Trigger Allergens

Only **Trigger Allergens** which relate to the anaphylaxis event should be recorded. Trigger allergens are part of the **Core Dataset** screen. To record trigger allergens:

	CYAN Dataset Details - Edit Dataset	
1. Click <b>Trigger</b> Allergen	General Signs & Symptoms Trigger Allergen Emergency Treatment IM Adrenaline History Management	
2. Click any box to reveal the drop- down	Trigger Allergen         Food Allergy       Select options         Inhalant Allergy       1 confirmed selected, 1 suspected selected         Drug Allergy       Y Check all Confirmed & Check all Suspected         Y Undeck all Confirmed & Wondeck all Suspected       Add	5 Click the $\mathbf{'x'}$ to hide
3. Tick the 1 <sup>st</sup> box to record a <b>Confirmed</b> trigger allergen	Insect Venom Allergy Confirmed / Suspected Add	the drop-down
4. Tick the 2 <sup>nd</sup> box to	Mold     Pollen	
trigger allergen	Save 🚤 Cancel	Tip: You may click <b>Save</b> at any time to close this screen and save your work

Only record trigger allergens which relate to this anaphylaxis event.

Confirmed means either: a. the patient has a known allergy and the event was likely caused by exposure to that allergen, or b. testing confirms an allergy and there was definitely or probably contact with that allergen.

Suspected means either: a. testing has not confirmed an allergy to a specific trigger, or b. an allergy is found but it is not clear that it was responsible for that specific event.

#### <u>Emergency Treatment – IM Adrenaline</u>

The **Emergency Treatment** tab is used to record whether or not intramuscular adrenaline was administered to treat the anaphylaxis event. To record this information:

	CYAN Dataset Details - Edit Dataset	
1. Click Emergency	General Signs & Symptoms Trigger Allergen Fregency Treatment IM Adrenaline History	
Treatment	Management	
2. Select the correct IM Adrenaline Administered	Emergency Treatment IM Adrenaline Administered Yes No Don't Know Antihistamine Administered Yes No Steroid Administered Yes No Salbutamol Therapy Yes No	
option	Oxygen Therapy Yes No	
	IV Fluids Yes No Other Rescue Medication Yes No	3. Select a Management
	Outcome	Option.
	Observation After Event X Reset 0	
	Not seen by Clinician	Tip: Option <b>Not seen</b>
	Seen by GP	by Clinician will
	Discharged no observation Discharged after period of observation PAU Paediatric Assessment Unit	exempt the patient from some KPIs.
	Admitted to General Paediatric Ward	

The **IM Adrenaline History** tab is only activated if you selected **Yes** as the **IM Adrenaline Administered** option. To complete this screen:

	CYAN Dataset Details - Edit Dataset		
	General Signs & Symptoms Trigger Allergen	Emergency Treatment IM Adrenaline History	
	Management		
	IM Adrenaline Administered		
1. Click Add	Add		
	Administered By Adrenatine Dose	Patient Position No. of Doses	
		^	
		~	
	10 V I Page 1 of 1 V No items		
2. Descendules	Item Details		
2. Record the	Administered By A & E Dept	¢ Add	
(other fields are	Adrenaline Dose	* Add	
(other fields are	Patient Position Sitting up	¢ Add	
optionaly	No. of Doses 2	¢ Add	3. Click this <b>Save</b>
		Save dancel	option before
Tip: Only click this		Save Cancel	proceeding
<b>Save</b> option if you			
wish to close the			
screen and only after			
Clicking the			
preceding <u>Save</u>			
opilon (box 3)			

#### Management at the time of the event

The **Management** tab is used to record information about the management of the patient **at the time of (or shortly following) the anaphylaxis event.** To complete the screen:

	CYAN Dataset Details - Add Dataset	
1. Click	General Signs & Symptoms Trigger Allergen Emergency Treatment IM Adrenaline History	
Management	Management	
<ul> <li>2. Record Auto Injector Prescribed details</li> <li>3. If prompted select Device Dose</li> </ul>	After Event Management Allergy Avoidance Advice Given Yes Previously Given No Don't Know Device dose Select an Option  Auto injector training given Emergency management advice given 0.15 0.3 0.5 Review arranged at time of event Other	4. Click the <b>'x'</b> to hide the drop-down
5. Record an option for <b>Auto injector</b> <b>training given</b>	Save       Cancel         CYAN Dataset Details - Add Dataset         General Signs & Symptoms Trigger Allergen Emergency Treatment IM Adrenaline History         Management       After Event Management         Allergy Avoidance Advice Given       Yes Previously Given No Don't Know         Auto Injector Prescribed       0.3         Previously Given No Don't Know         Auto Injector training given       Yes Previously Given No Don't Know	
6. Record <b>Management Plan given</b> details	Emergency management advice given Yes Previously Given No Don't Know Management Plan given Yes Previously Given No Don't Know Review arranged at time of event Yes Torr't Know	7. Record <b>Review</b> arranged at time of event details
	Save <del>Cancel</del>	8. Click <b>Save</b> to close this window and save your work

Remember you are only recording details of the management of the patient at the time of the anaphylaxis event.

Only select 'Yes' to Auto Injector Prescribed if this occurred at or within a few days of discharge.

A valid Management Plan needs to be written or printed and should be the BSACI Management Plan or local equivalent.

'Review arranged' means directly referred to the local allergy service by the admitting team or the admitting team have confirmed that an existing allergy care follow up is already in place. Note that a referral to or follow-up with General Paediatrics may be counted as meeting this indicator. Being advised to see a GP, sent home with advice or similar does not fulfil this indicator.

### Editing anaphylaxis event details

You may not be able to input all details of the anaphylaxis event in one session. To add further details or edit the record find your patient and then:



# Further Guidance

If you require further training or guidance on the use of CAS contact the IMS team via e-mail at:

NSS.imsrequests@nhs.net