



## SURVEY

It takes about 15 min to fill in the questionnaire.

Anaesthesiologist: Dr. \_\_\_\_\_

R.I.Z.I.V.-number \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Hospital: \_\_\_\_\_

E-mail address \_\_\_\_\_

## 1. PATIENT DEMOGRAPHY

Detailed patient identification (to be filled in after printing this document):

Name: \_\_\_\_\_

First Name: \_\_\_\_\_

Address: \_\_\_\_\_

Birth date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Social Security Number: \_\_\_\_\_

Patient Initials (Name, First Name): \_\_\_\_\_

Sex: \_\_\_\_\_

Age: \_\_\_\_\_

years

Profession: \_\_\_\_\_

Weight: \_\_\_\_\_

kg

Height: \_\_\_\_\_

cm

Type of intervention:

- |   |  |
|---|--|
| <input type="checkbox"/> cardiac surgery      | <input type="checkbox"/> gynecologic surgery   |
| <input type="checkbox"/> thoracic surgery     | <input type="checkbox"/> orthopedic surgery    |
| <input type="checkbox"/> vascular surgery     | <input type="checkbox"/> ENT surgery           |
| <input type="checkbox"/> abdominal surgery    | <input type="checkbox"/> maxillofacial surgery |
| <input type="checkbox"/> urologic surgery     | <input type="checkbox"/> ophthalmic surgery    |
| <input type="checkbox"/> laparoscopic surgery | <input type="checkbox"/> trauma surgery        |
| <input type="checkbox"/> neurosurgery         | <input type="checkbox"/> diagnostic procedure  |
| <input type="checkbox"/> spine surgery        | <input type="checkbox"/> other: _____          |
| <input type="checkbox"/> obstetric surgery    |  |

Date of reaction: -- -- 2008

## 2. MEDICAL HISTORY

Cardio-vascular disease?

Cardiac disease?  Yes  No  Unknown

If yes

- valvular
- ischemic
- rhythm
- Other: \_\_\_\_\_

Vascular disease?  Yes  No  Unknown

Hypertension?  Yes  No  Unknown

Respiratory disease?

Asthma?  Yes  No  Unknown

COPD?  Yes  No  Unknown

Other co-morbidity?

Yes  No  Unknown

If yes,

please specify:

Chronic drug therapy

Concomitant medication before this intervention/ surgery?  Yes  No

If yes,

Drug (generic name)	Dose	Frequency	Route	Continued on day of intervention/ surgery?

Does the patient take cough medication?  Regularly  Occasionally  Unknown

### 3. SURGICAL AND ANAESTHETIC HISTORY

Did the patient have previous interventions/ surgeries under anaesthesia?  Yes  No  Unknown

If yes,

1. Were there any problems during these interventions/ surgeries?  Yes  No  Unknown

If yes,

Was the problem allergic?  Yes  No  Unknown

2. Were muscle relaxants used?  Yes  No  Unknown

### 4. ALLERGIC HISTORY

Has the patient had fever or an allergic constitution?  Yes  No  Unknown

If yes,

please specify:

Is the patient allergic to antibiotics?  Yes  No  Unknown

If yes,

- Penicillin
- Other (specify):

Is the patient allergic to other drugs?  Yes  No  Unknown

If yes,

please specify the drug and symptoms of the reaction:

Is the patient allergic to latex?  Yes  No  Unknown

If yes,

please specify the symptoms of the reaction:

Is the patient allergic to food or preservatives?  Yes  No  Unknown

If yes,

please specify type of food and symptoms of the reaction:

Is the patient allergic to X-ray contrast media?  Yes  No  Unknown

If yes,

please specify the symptoms of the reaction:

Did the patient ever have problems during dentistry?  Yes  No  Unknown

If yes,

please specify the symptoms of the reaction:

Has any first line family member an allergy history?  Yes  No  Unknown

If yes,

please specify the allergen and the symptoms of the reaction:

## 5. THE SUSPECTED ANAPHYLACTIC REACTION

## A. Drugs and substances used BEFORE the start of the suspected anaphylactic reaction

Please note only drugs and substances given before the start of the suspected anaphylactic reaction.

### Premedication:

Yes  No

If yes, specify:

- benzodiazepines
- other:

### Anaesthesia:

- general anaesthesia
- regional anaesthesia
- local anaesthesia
- sedation

(several choices are possible)

**Inhalation anaesthetics:**  Yes  No

**Hypnotics:**  Yes  No

If yes, specify:

- Propofol
- Etomidate
- Pentothal
- Ketamine
- Midazolam
- Other:

**Analgesics:**  Yes  No

If yes, specify:

- Sufentanil
- Fentanyl
- Remifentanyl
- Alfentanil
- Mepiridine
- Piritramide
- Morphine
- Tramadol
- Other:

**Muscle relaxants:**  Yes  No

If yes, specify:

- Atracurium
- Rocuronium
- Cisatracurium
- Mivacurium
- Vecuronium
- Succinylcholine
- Other:

**Local anaesthetics:**  Yes  No

If yes, specify:

- Lidocaine
- Bupivacaine
- Levo-bupivacaine
- Ropivacaine
- Mepivacaine
- Prilocaine
- Cocaine
- EMLA
- Other:

Was adrenaline added to the local anaesthetics?  Yes  No

Were other products added to the local anaesthetics?  Yes  No

### Other products

Crystalloids  Yes  No

Colloids  Yes  No

If yes, specify:

- Gelatins
- Starch
- Dextrans
- Human Albumin
- Other:

Antibiotics  Yes  No

If yes, specify:

- Penicillin  Cefazolin  Metronidazol  
 Other:

NSAIDs  Yes  No

Perfusalgan  Yes  No

Disinfectants  Yes  No

If yes, specify:

- chlorhexidine  povidon iodine  
 Other:

Contact with latex products  Yes  No

X-ray contrast media  Yes  No

## B. Symptoms and signs of the suspected anaphylactic reaction

Time of induction of anaesthesia is time zero (t0)

**Time of injection/application/use (e.g. antibiotic/chlorhexidine/ latex gloves) of (suspected) agent(s) after t0 in minutes:**

not applicable min

**Time of the reaction after t0 in minutes:** not applicable min

**Time of skin incision after t0 in minutes:** not applicable min

**What was the first symptom or sign?** (several choices are possible)

Hypotension  Tachycardia  Cutaneous  Bronchospasm  Desaturation

### Muco-cutaneous symptoms

**Itch?**  Yes  No

If yes, generalized?

**Rash (Erythema)?**  Yes  No

If yes, generalized?

**Urticaria?**  Yes  No

If yes, generalized?

**Angioedema?**  Yes  No

If yes, generalized?

**Laryngeal edema?**  Yes  No

### Cardiovascular symptoms

**Angina?**  Yes  No

**Lightheadedness/ Faintness/ Syncope**  Yes  No

**Hypotension/ Cardiac Arrest?**  Yes  No

Initial Blood Pressure:  /  /  mmHg (Systolic/Diastolic/Mean; e.g. 130/70/100)

Lowest Blood Pressure:  /  /  mmHg (Systolic/Diastolic/Mean; e.g. 60/30/42)

**Drop in end-tidal CO2?**  Yes  No

Initial end-tidal CO2:  mmHg

Lowest end-tidal CO2:  mmHg

**ECG changes?**  Yes  No

**Tachycardia?**  Yes  No

Initial Heart Rate:  beats per min

Highest Heart Rate:  beats per min

**Bradycardia?**  Yes  No

Initial Heart Rate:  beats per min

Lowest Heart Rate:  beats per min

**New Cardiac conduction changes?**  Yes  No

type:

sinus node block  first degree AV block  second degree AV block  third degree AV block

right bundle branch block  left bundle branch block

Other:

(several choices are possible)

**New cardiac arrhythmias?**  Yes  No

type:

Sinus arrhythmia  Premature atrial contractions  Paroxysmal supraventricular tachycardia

Atrial flutter  Atrial fibrillation  Junctional rhythm  Premature ventricular contractions  Ventricular tachycardia

Ventricular fibrillation  Asystolie

Other:

(several choices are possible)

**Ischaemia?**  Yes  No

### Respiratory symptoms

**Dyspnoea?**  Yes  No

**Hoarseness/ Dysphonia?**  Yes  No

**Stridor?**  Yes  No

**Increase in respiratory resistance?**  Yes  No

Initial peak airway pressure:  cmH2O  
Highest peak airway pressure:  cmH2O

**O2-desaturation?**  Yes  No

Initial O2-saturation:  %  
Lowest O2-saturation:  % with FiO2 =

**Wheezing?**  Yes  No

**Bilateral breath sounds?**  Yes  No  Unknown

**Pulmonary edema?**  Yes  No

**Gastro-intestinal symptoms**

**Abdominal pain?**  Yes  No

**Nausea?**  Yes  No

**Vomiting?**  Yes  No

**Diarrhea?**  Yes  No

C. Treatment of the suspected anaphylactic reaction

**Ephedrine**  Yes  No

Total Bolus Dose =  mg  
Efficacious?  Yes  No

**Adrenaline IV**  Yes  No

Total Bolus Dose =  mg  
Efficacious?  Yes  No  
Continuous infusion?  Yes  No

**Adrenaline Endotracheal SC and/or IM**  Yes  No

Total Bolus Dose =  mg  
Efficacious?  Yes  No

**Steroids?**  Yes  No

**H1-Antihistamines?**  Yes  No

**H2-Antihistamines?**  Yes  No

**Other medication?**  Yes  No

If yes,

Drug (generic name)	Dose	Frequency	Route
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Extra fluids?**  Yes  No

Crystalloids?  Yes  No  
Amount: -- L  
Colloids?  Yes  No  
Amount: -- L

**Endotracheal intubation necessary?**  Yes  No

**External cardiac compressions?**  Yes  No

Duration: -- min



#### D. Outcome of the suspected anaphylactic reaction

Was the intervention/ surgery cancelled?  Yes  No

Was intensive care necessary?  Yes  No

Prolonged mechanical ventilation?  Yes  No

Number of days: -- days

Prolonged inotropic support?  Yes  No

Number of days: -- days

Mortality?  Yes  No

Morbidity?  Yes  No

If yes, specify:

- neurologic
- cardiac
- other:

## 6. PRIMARY INVESTIGATION: mast cell tryptase

To measure mast cell tryptase, take 5-7.5 ml of blood in a dry tube (serum tube). The sample needs to be centrifuged. Stability of the sample is 2 days at room temperature, 1 week at 4°C and even longer when the sample is frozen. Mast cell tryptase is best measured approximately 1 hour after the start of the suspected anaphylactic reaction.

Was mast cell tryptase measured?  Yes  No

Time of sampling after t0 in minutes:  min

To which lab was the sample sent?

**Antwerp:**

- UZA: Immunologie, allergologie en reumatologie.  
Wilrijkstraat 10, 2650 Edegem (03/8213784).

**Louvain:**

UZ Gasthuisberg, Laboratoriumgeneeskunde/ Immunologie.  
Herestraat 49, 3000 Leuven (016/344700).

**Brussels:**

Hôpital Erasme, Laboratoires d'immunologie-transfusion et d'hématologie.  
(Prof. Mascart, Dr A. Ocmant)  
route de Lennik 808, 1070 Bruxelles (02/5553862).

**Luik:**

CHR Citadelle, Biologie Clinique.  
boulevard du 12ème de ligne 1, 4000 Liège (04/2256812)

**Other center:**

please specify:

## 7. SECONDARY INVESTIGATION AT MAJOR ALLERGY LABS

Secondary investigation is done at one of the centres below, 4 to 6 weeks after the suspected anaphylactic reaction. Please make an appointment for the patient at one of these centres. At these centres a basal mast cell tryptase, skin tests and sometimes RAST tests and basophil activation tests will be done. The filled-in questionnaire, a copy of the anaesthesia chart and the mast cell tryptase should be available to the centre.

With which allergy centre did you make an appointment?

- UZA:** Dienst Immunologie, Allergologie, Reumatologie: 03/821.35.26  
Dienst Kinderallergologie: 03/821.35.26
- AZ Jan Palfijn Gent:** Allergiekliniek (Prof. Dr. D. Ebo): 09/224.71.11
- UZ Gasthuisberg, Leuven:** Afdeling Allergie/Interne geneeskunde: 016/343805  
Afdeling Kinderallergologie/Kindergeneeskunde: 016/343991
- UCL Saint-Luc:** Service de Pneumologie (Dr. Pirson, Dr. Pilette) : 02/7642832 et 02/7641902

**ULB Erasme:** Service d'Anesthesie (Dr. Hennart): 02/5553606

**CHNDRF Charleroi:** Service d'Anesthesie (Dr Françoise Manuel): 071/281211 et 071/278111

**CHR :Hôpital de Warquignies, Boussu:** Service de Pneumologie (Dr. Halloy, Dr. Richez): 065/359065

**CHR Citadelle, Liège:** Service de Pneumologie (Dr. J.L. Grand): 04/2256070

**CH du Bois de l'Abbaye et de l'Hesbaye, Seraing:** Service de Pneumologie (Dr. H. Simonis): 04/3389800

**CHU Sart-Tilman, Liège:** Service d'Anesthesie (Centre de la douleur, Dr. Van Den Bosch): 04/ 3667786

**CHRN Namur:** Service de Pneumologie (Dr. Mairesse, Dr. Ledent): 081/726905 et 081/726637

Date of the appointment: -- -- 2008

## 8. CONCLUSION

After investigation a letter is written to the involved anaesthesiologist, the general practitioner and the patient. If the patient and the anaesthesiologist agree, the file of the patient could be available in a protected database of the BSAR/ SBAR in case the patient should have future surgery at an other hospital. The protected database is only accessible for anaesthesiologists. Anaesthesiologists are encouraged to update the letter and the file of the patient with the evolution of subsequent anaesthesias. If the patient and the anaesthesiologist agree, the data of the file can also be used for epidemiological reasons (e.g. incidence of anaphylaxis to anaesthetics).

**Do patient and anaesthesiologist agree that these data and the data of further investigation are available at a protected database of the BVAR/ SBAR for future use?**

Yes  No

**Do patient and anaesthesiologist agree that the BVAR/ SBAR uses these data and the data of further investigation for epidemiological reasons?**

Yes  No

## THANK YOU FOR YOUR COOPERATION!

**Please print this file and send it to one of the major allergy labs:**

**UZA:** Dienst Immunologie, Allergologie, Reumatologie: 03/821.35.26  
Dienst Kinderallergologie: 03/821.35.26

**AZ Jan Palfijn Gent:** Allergiekliniek (Prof. Dr. D. Ebo): 09/224.71.11

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