

Sponsors: Swiss Society of Paediatrics (SSP) and Federal Office of Public Health (FOPH)

Invasive Infections caused by Group A Streptococci (iGAS)Date specification: DD/MM/YYYY**Patient**

Date of birth: ____/____/____

M: F: Origin: Caucasian African Asian Other; please specify _____

Bodyweight: _____ kg

Date of start of symptoms: ____/____/____

Date of hospital admission: ____/____/____ Date of hospital discharge: ____/____/____

Type of infection (multiple choices possible)

- | | | |
|--|--|---|
| <input type="checkbox"/> Cellulitis | <input type="checkbox"/> Pharyngitis/Tonsillitis | <input type="checkbox"/> Pneumonia |
| <input type="checkbox"/> Erysipela | <input type="checkbox"/> Osteomyelitis | <input type="checkbox"/> Pleural empyema |
| <input type="checkbox"/> Abscess | <input type="checkbox"/> Arthritis | <input type="checkbox"/> Meningitis |
| <input type="checkbox"/> Wound infection | <input type="checkbox"/> Fasciitis | <input type="checkbox"/> Non-focal bacteremia |
| <input type="checkbox"/> Myositis | <input type="checkbox"/> Peritonitis | <input type="checkbox"/> Sepsis |
| <input type="checkbox"/> Other; please specify _____ | | |

Symptoms / Clinical findings

- | | | |
|--|---|--|
| <input type="checkbox"/> Fever | <input type="checkbox"/> Vomiting | <input type="checkbox"/> Diarrhoea |
| <input type="checkbox"/> Art. Hypotension* | <input type="checkbox"/> Renal dysfunction* | <input type="checkbox"/> Dissem. intravas. coagulation (DIC) |
| <input type="checkbox"/> Dyspnoea | <input type="checkbox"/> Liver dysfunction* | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Multiorgan-failure* | <input type="checkbox"/> Erythema/Enanthema | <input type="checkbox"/> Other: _____ |

* see definitions, table below

TreatmentAntibiotics i.v. no / if yes, please specify;

Antimicrobial / dose (mg/kg/d): _____ Duration (days) _____

Antimicrobial / dose (mg/kg/d): _____ Duration (days) _____

Antimicrobial / dose (mg/kg/d): _____ Duration (days) _____

Antimicrobial / dose (mg/kg/d): _____ Duration (days) _____

Surgery no / yes, please specify type _____ date: ____/____/____Intensive care unit? No / Yes; if yes, duration of stay: _____ (days)Intubation? No / Yes / Catecholamines? No / Yes;Outpatient antibiotic treatment? No / if Yes, please specify _____

Antibiotic / dose (mg/kg/d): _____ Duration (days): _____

Outcome (14d after diagnosis of iGAS OR at hospital discharge, if earlier)

Date of assessment: ____/____/____

 Cured Sequelae, please specify _____ Exitus letalis: ____/____/____Was iGAS the cause of death? Yes / if No; other cause? _____

Risk factors

Underlying disease? No Yes, please specify category

- Neurologic/neuromuscular Gastrointestinal Metabolic
 Cardiovascular Hematologic Premature / neonatal
 Respiratory Immunologic Genetic or congenital defect
 Renal / urologic Malignancy Other: _____

Please specify disease: _____

Former iGAS No / Yes, if Yes, date of diagnosis? ____/____/____

Acute risk factors (30d prior to diagnosis of iGAS)

Surgery No / Yes, if Yes, which one? _____

Varicella infection No / Yes, if Yes, date of varicella onset ____/____/____

Drugs No / Yes, if Yes Paracetamol Ibuprofen Other, please specify: _____

Contact persons with GAS-infection within the last 4 weeks? No / Yes / Unknown

If Yes: Household contact School contact Other contact, please specify _____

Childcare? No / Yes Staying in an institution (residence home, etc.) No / Yes

Pathogen

Blood culture: Done: Yes, date: ____/____/____ No / GAS found: Yes / No

Throat swab: Done: Yes, date: ____/____/____ No / GAS found: Yes / No

Rapid test: Yes / No Culture: Yes / No

Cerebrospinal fluid: Done: Yes, date: ____/____/____ No / GAS found: Yes / No

Other, please specify: _____

Done: Yes, date: ____/____/____ No / GAS found: Yes / No

Pathogen stored? Yes; where? address: _____ No

GAS-Serology (ASL-O, DNase) Done: Yes, date: ____/____/____ Result: _____ No

Name and adress of follow-up physician:

Thank you for completing this form!

Please return to:

Dr. med. Anita Niederer-Loher, Ostschweizer Kinderspital, Oberärztin Infektiologie und Spitalhygiene,
Claudiusstrasse 6, 9006 St. Gallen

Definitions:

Cardiovascular dysfunction

Despite administration of isotonic intravenous fluid bolus ≥ 40 mL/kg in 1 hr

- Decrease in BP (hypotension) < 5 th percentile for age or systolic BP < 2 SD below normal for age^d
OR
- Need for vasoactive drug to maintain BP in normal range (dopamine > 5 $\mu\text{g}/\text{kg}/\text{min}$ or dobutamine, epinephrine, or norepinephrine at any dose)
OR
- Two of the following
Unexplained metabolic acidosis: base deficit > 5.0 mEq/L
Increased arterial lactate > 2 times upper limit of normal
Oliguria: urine output < 0.5 mL/kg/hr
Prolonged capillary refill: > 5 secs
Core to peripheral temperature gap $> 3^\circ\text{C}$

Respiratory^e

- $\text{PaO}_2/\text{FiO}_2 < 300$ in absence of cyanotic heart disease or preexisting lung disease
OR
- $\text{Paco}_2 > 65$ torr or 20 mm Hg over baseline Paco_2
OR
- Proven need^e or $> 50\%$ FiO_2 to maintain saturation $\geq 92\%$
OR
- Need for nonelective invasive or noninvasive mechanical ventilation^d

Neurologic

- Glasgow Coma Score ≤ 11 (57)
OR
- Acute change in mental status with a decrease in Glasgow Coma Score ≥ 3 points from abnormal baseline

Hematologic

- Platelet count $< 80,000/\text{mm}^3$ or a decline of 50% in platelet count from highest value recorded over the past 3 days (for chronic hematology/oncology patients)
OR
- International normalized ratio > 2

Renal

- Serum creatinine ≥ 2 times upper limit of normal for age or 2-fold increase in baseline creatinine

Hepatic

- Total bilirubin ≥ 4 mg/dL (not applicable for newborn)
OR
- ALT 2 times upper limit of normal for age

Source: Goldstein B, Giroir B, Randolph A. International pediatric sepsis consensus conference: *Definitions for sepsis and organ dysfunction in pediatrics** 2005, DOI [10.1097/01.PCC.0000149131.72248.E6](https://doi.org/10.1097/01.PCC.0000149131.72248.E6)