



Invasive Group A Streptococcal Disease (iGAS) Case Report Form

<u>INSTRUCTIONS</u>		Panorama Data Entry Guidance More details in Section Q, pages 5-6.
<ul style="list-style-type: none"> Confidential when completed Report probable and confirmed cases of invasive group A Streptococcal disease to your MHO Enter probable and confirmed cases into Panorama or PARIS Fields marked with * are the minimum data set for surveillance/public health management at the provincial level Fax or e-mail pages 1-4 of this case report form to 604-707-2515 or VPD.epi@bccdc.ca Case definitions are in Section O, page 4 BCCDC Immunization and Vaccine Preventable Diseases Service phone number: 604-707-2548 		
PERSON REPORTING		
Health Authority: <input type="checkbox"/> FHA <input type="checkbox"/> FNHA <input type="checkbox"/> IHA <input type="checkbox"/> NHA <input type="checkbox"/> VCH <input type="checkbox"/> VIHA		Review /update using the links on the top right hand corner: >My Account >>User Profile If entering data on behalf of someone else, record in >Notes when the investigation is in context. Record Report Date: >Investigation >>Investigation Details >>>Reporting Notifications as Report Date (Received)
Name <i>Last</i> <i>First</i>	Phone Number: () - ext.	
Email:	Fax Number () - ext. *Report Date (Received): <div style="text-align: right; border-top: 1px solid black; width: 150px; margin-left: auto;"> YYYY / MM / DD </div>	
A. CLIENT PERSONAL INFORMATION		
*Name: <i>Last</i> <i>First</i> <i>Middle</i>		Record or review and update in >Subject >>Client Details >>>Personal Information Select this address as "Client Home Address at Time of Initial Investigation" in >Investigation >>Investigation Details >>>Investigation Information For temporary workers, snowbirds, and students, record Health Region Information as "Out of BC" (Section P-Q)
*Date of Birth: YYYY / MM / DD	*Gender: <input type="checkbox"/> Female <input type="checkbox"/> Male <input type="checkbox"/> Undifferentiated <input type="checkbox"/> Unknown	
*Health Card Number:	Alternate Name(s):	
Phone Number (home/work/mobile): () - ext.		
*Address at time of case: <i>Unit #</i> <i>Street #</i> <i>Street Name</i> <i>City</i>		
*Postal Code:	*Province:	
*Country of Residence (if not Canada):		
*Address Located on Reserve Administered By: For temporary workers, snowbirds, and students, provide address, province, and country of permanent residence:		
B. *ABORIGINAL INFORMATION		
*Does the client wish to identify as an Aboriginal person? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Asked, not provided <input type="checkbox"/> Not asked		Record in >Subject >>Client Details >>>Aboriginal Information
*If yes, Aboriginal Identity: <input type="checkbox"/> First Nations <input type="checkbox"/> First Nations and Inuit <input type="checkbox"/> First Nations and Métis <input type="checkbox"/> First Nations. Inuit and Métis <input type="checkbox"/> Inuit <input type="checkbox"/> Inuit and Métis <input type="checkbox"/> Métis <input type="checkbox"/> Asked, but unknown <input type="checkbox"/> Asked, not provided <input type="checkbox"/> Not asked		
*If First Nations, is the client: <input type="checkbox"/> Non-Status Indian <input type="checkbox"/> Status Indian <input type="checkbox"/> Asked, but unknown <input type="checkbox"/> Asked, not provided <input type="checkbox"/> Not asked		
C. *CLASSIFICATION		
<input type="checkbox"/> Confirmed <input type="checkbox"/> Probable <input type="checkbox"/> Person Under Investigation <input type="checkbox"/> Not a Case		>Investigation >>Investigation Details >>>Disease Summary <div style="text-align: center; font-size: small;"> <i>See page 4 for case definitions.</i> </div>



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D. *RISK FACTORS						
*Risk Factor	Yes	No	Asked but Unknown	Declined to Answer	Not Assessed	
*Chronic cardiac condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Record in >Subject >> Risk Factors If the investigation is in context, the preset list of risk factors specific to iGAS will display, and selected risk factors will be set as pertinent to the investigation.
*Diabetes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*Chronic respiratory/pulmonary condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*Homeless/under-housed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*Immunocompromised, <i>specify:</i> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*Alcoholism	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*Injection drug use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*Other risk factor, <i>specify:</i> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
E. *LABORATORY INFORMATION						
*Specimen Collected for culture	*Collection Date (YYYY/MM/DD)	*Result				
<input type="checkbox"/> Blood	_____	<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> Pending	Record in >Investigation >>Lab >>>Lab Quick Entry Attach histopathology reports in >Investigation >>Investigation Details >>>Links & Attachments Record Causative Agent and emm type in >Investigation >>Investigation Details >>>Disease Summary Record SOF in Further Differentiation	
<input type="checkbox"/> CSF	_____	<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> Pending		
<input type="checkbox"/> Joint fluid	_____	<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> Pending		
<input type="checkbox"/> Deep tissue [†] , <i>specify:</i> _____	_____	<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> Pending		
<input type="checkbox"/> Other [†] , <i>specify:</i> _____	_____	<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> Pending		
[†] A histopathology report should be enclosed if the source of the specimen was not clearly a sterile site (blood, CSF, or joint fluid).						
<i>Streptococcus pyogenes</i> further characterization: *emm: _____ *SOF: <input type="checkbox"/> Positive <input type="checkbox"/> Negative						
F. PHYSICIAN						
Physician Name: _____ <i>Last</i> <i>First</i>					Optional: Record in >Investigation >>Investigation Details >>>External Sources	
Physician Phone: (_____) _____ ext. _____						
G. *SIGNS AND SYMPTOMS						
*Onset of illness: _____ / _____ / _____ YYYY MM DD <i>The earliest date the client reported a clinically-relevant symptom.</i>						
*Sign / Symptom	Yes	No	Asked but Unknown	Declined to Answer	Not Assessed	
*Arthritis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Record in >Investigation >>Signs and Symptoms Select "Set as Onset" and record onset date of the first symptom indicative of invasive group A Streptococcal disease.
*Bacteremia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*Cellulitis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*Meningitis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*Necrotizing fasciitis/myositis/gangrene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*Pneumonia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*Peri-partum fever associated with pregnancy/labour <i>If yes, complete section H.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*Toxic shock syndrome	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
*Other, <i>specify:</i> _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



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H. PREGNANCY	
*Outcome of pregnancy (if relevant): <input type="checkbox"/> Fetal death (miscarriage/stillbirth) <input type="checkbox"/> Live birth <input type="checkbox"/> Did not ask *If live birth, was the infant affected? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Did not ask	
I. HOSPITALIZATION	
*Admitted to hospital: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Did not ask If yes, hospital name: _____ Admission date: _____ YYYY/MM/DD	Record in >Investigation >>Investigation Details >>>Links & Attachments >>>>(iGAS) Invasive Group A Streptococcal Investigation Form If infant affected in a case of peri-partum fever, record in Transmission Event Quick Entry and link to case investigation for infant (Section Q)
Admitted to an intensive care unit: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Did not ask	
*Surgical Intervention: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Did not ask	
J. PREDISPOSING CONDITIONS	
*Chickenpox in the last 30 days <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Did not ask *Skin infection <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Did not ask *Wound <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Did not ask *If yes, specify type of wound: <input type="checkbox"/> Surgical <input type="checkbox"/> Trauma <input type="checkbox"/> Burn <input type="checkbox"/> Did not ask	
K. EXPOSURES	
*Contact with known case: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Did not ask *If yes, name of case: _____ *Location (city/country): _____ *Date of first contact: _____ *Date of most recent contact: _____ YYYY/MM/DD YYYY/MM/DD *Additional details: _____	Record in >Investigation >>Investigation Details >>>Links & Attachments >>>>(iGAS) Invasive Group A Streptococcal Investigation Form Create acquisition event and link to investigation for known case: >Investigation >>Exposure Summary >>>Acquisition Event Link to setting if cluster investigation/public health follow-up conducted within setting >Investigation >>Exposure Summary as an Acquisition Event / Transmission Event (Section Q)
*Hospital acquired infection <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Did not ask (defined as admission to hospital within 30 days prior to iGAS onset) *If yes, specify hospital name, type and location: _____	
*Attends child care, school or university <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Did not ask *Lives in communal setting <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Did not ask If yes, specify name of setting, type and location: _____	
M. *OUTCOME	
<input type="checkbox"/> Fully Recovered <input type="checkbox"/> Not yet recovered/recovering <input type="checkbox"/> Permanent disability, specify below <input type="checkbox"/> Other, specify below <input type="checkbox"/> Unknown <input type="checkbox"/> Death *If died, date of death: _____ YYYY/MM/DD *If died, cause of death: <input type="checkbox"/> Contributed but wasn't the underlying cause <input type="checkbox"/> Did not contribute to death/incidental <input type="checkbox"/> Other, specify: _____ <input type="checkbox"/> Underlying cause of death <input type="checkbox"/> Unknown *Specify other outcome / permanent disability: _____	Record in >Investigation >> Outcome (Section Q)



		Panorama Data Entry Guidance
N. *NOTES		
		Record notes relevant to provincial surveillance in >Investigation >>Investigation Details >>>Links & Attachments >>>>iGAS Investigation Form (in Notes)
O. CASE DEFINITIONS		
Invasive Group A Streptococcal Disease		Reportable?
Confirmed case	Laboratory confirmation of infection with or without clinical evidence ^[1] of invasive disease: <ul style="list-style-type: none"> isolation of group A streptococcus (<i>Streptococcus pyogenes</i>) from a normally sterile site (blood, cerebral spinal fluid [CSF], pleural fluid, pericardial fluid, peritoneal fluid, deep tissue specimen taken during surgery [e.g. muscle collected during debridement for necrotizing fasciitis], bone or joint fluid excluding the middle ear and superficial wound aspirates [e.g. skin and soft tissue abscesses])^[2] <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> demonstration of <i>S. pyogenes</i> DNA by an appropriately validated nucleic acid test (NAT) from a normally sterile site.^[2] 	Yes
Probable case	Clinical evidence ^[1] of invasive disease in the absence of another identified aetiology and with non-confirmatory laboratory evidence of infection by: <ul style="list-style-type: none"> isolation of group A streptococcus from a non-sterile site (non-sterile sites include: throat, sputum, bronchoalveolar lavage (BAL), vagina, superficial skin lesion, middle ear, or superficial abscess or wound specimens (e.g., aspirate or from incision and drainage)), OR positive group A streptococcus antigen detection 	Yes
Suspect case	These are general classifications of cases included in the Panorama user interface. Cases that fall into these classifications are not reportable. The Suspect case classification should not be used for Invasive Group A Streptococcal disease investigations.	
Person under investigation	Person Under Investigation: A client who is being/has been followed-up for a reportable condition and does not meet the criteria outlined in any of the case definitions; however, the diagnosis has not been completely ruled out.	No
Not a case	Not a Case: A client who was followed-up for a reportable condition but was found to have an alternate diagnosis or to have been entered in error.	
<p>[1] Clinical evidence of invasive disease may be manifested as one or more of several conditions indicative of severe disease:</p> <ul style="list-style-type: none"> streptococcal toxic shock syndrome soft-tissue necrosis, including necrotizing fasciitis, myositis or gangrene meningitis fetal/infant death and clinical evidence of maternal illness compatible with invasive group A streptococcal disease^[2] <p>[2] When fetal demise or infant death occurs in association with puerperal infection, isolation of group A streptococcus from the placenta, amniotic fluid and/or endometrium is also considered confirmatory for both the mother and fetus/infant. Puerperal infection is defined as: postpartum iGAS occurring while the mother is still in hospital or within 7 days of hospital discharge or giving birth.</p> <p>Notes regarding GAS pneumonia:</p> <ul style="list-style-type: none"> Report GAS pneumonia in Panorama/PARIS as a confirmed case only when the isolate is from a sterile site (e.g. aspiration from an empyema, blood culture). Providing no other cause has been identified, report GAS pneumonia in Panorama/PARIS as a probable case when the isolate is from sputum or a bronchoalveolar lavage (BAL), as sputum and BAL are not considered sterile site specimens. When the GAS isolate is from sputum or a BAL, regard GAS pneumonia as a form of severe invasive disease for the purposes of public health management 		



P. OUT OF PROVINCE CASES

Out of province cases should be notified to the BC Centre for Disease Control to enable reporting to their home jurisdiction.

For cases requiring immediate public health follow-up, notification should be made by phone:

- Weekdays - 604-707-2548 (Immunization and Vaccine Preventable Diseases Service)
- Evenings and weekends - 604-312-9220 (nurse/physician on call)

For cases not requiring immediate public health follow-up, notification may be made by fax (604-707-2515) or email (vpd.epi@bccdc.ca).

Q. PANORAMA DATA ENTRY DETAILS

For definitions on documenting the appropriate **geographical attribution of the case**, see Communicable Disease Control Manual (www.bccdc.ca): [Surveillance of Reportable Conditions-Documenting Geography for CD Investigations in Panorama](#).

For temporary workers, snowbirds, or students attending educational institution:

- "Client Home Address at Time of Initial Investigation" should reflect temporary BC address
- Record their health region information as Out of BC (under Subject > Client Details >> Personal Information).
- Record primary home address as the address of their permanent residence (under Subject > Client Details >> Personal Information).

If out of provinces cases are entered in Panorama, record the out of province address in Panorama as "Client Home Address at Time of Initial Investigation" (under Investigation > Investigation Details >> Investigation Information on the left hand navigation).

If the **infant is affected in a case of peri-partum fever**, create a Transmission Event for the mother on the Exposure Summary screen (under Investigation on the left hand navigation) using the Transmission Event Quick Entry section.

Transmission Event > Exposure Name: XXX-Vertical Transmission *where XXX is the Health Authority identifier (FNHA, IHA, VIHA, FHA, or NHA)*
 Transmission Event Date/Time > Transmission Start: Infant's date of birth
 Exposure Location > Exposure Location Name: *same as Exposure Name*
 > Exposure Setting Type: Vertical transmission/congenital

Create a case investigation for the infant, with the infant's Acquisition Event linking to the mother's Transmission Event.

^Training Materials and Data Standards: Exposures-Reference Guide-Investigations; Data Standard-Documenting Contacts to a Case; Data Standard-Documentation of Acquisition Event/Transmission Event in Panorama; Data Standard-Vertical Transmission and Congenital/Neonatal Infections

Record **contact with a known case** in >Investigation >>Investigation Details >>>Links & Attachments >>>>iGAS Investigation Form.

If **contact with a known case** = Yes, create an Acquisition Event on the Exposure Summary Screen (under Investigation on the land hand navigation).

Acquisition Event > Exposure Name: XXX-Contact-iGAS *where XXX is the Health Authority identifier (FNHA, IHA, VIHA, FHA, or NHA)*
 Acquisition Event Date/Time > Acquisition Start: date of first contact or 30 days prior to onset of symptoms (*select most recent*)
 > Acquisition End: most recent contact
 Exposure Location > Exposure Location Name: *same as Exposure Name*
 > Country: country of exposure to contact with a known case
 > City: city of exposure to contact with a known case

Link this Acquisition Event to a Transmission Event on the source case's iGAS investigation.

^Training Materials and Data Standards: Exposures-Reference Guide-Investigations; Data Standard - Documenting Contacts to a Case; Exposure Summary – Documentation Standard – Investigations; Data Standard - Documentation of Acquisition Event/Transmission Event in Panorama

If the infection was **acquired in hospital** and a cluster investigation or further public health follow-up was conducted with the hospital, create an Acquisition Event on the Exposure Summary screen (under Investigation in the left hand navigation) using the Create Acquisition Event button to get to the Maintain Acquisition Event Details screen.

Acquisition Event > Exposure Name: XXX-Nosocomial-iGAS *where XXX is the Health Authority identifier (FNHA, IHA, VIHA, FHA, or NHA)*
 > Potential Mode of Acquisition: Airborne/droplet
 > Nature of Exposure: Nosocomial
 Acquisition Event Date/Time > Start Date: Admission date/date visited hospital or 30 days prior to onset of symptoms (*select the most recent*)
 Exposure Location > Exposure Location Name: *same as Exposure Name*
 > Exposure Setting Type: Facility - non-recreational
 > Exposure Setting: Hospital

^Training Materials and Data Standards: Exposures-Reference Guide-Investigations; Exposure Summary – Documentation Standard – Investigations; Data Standard - Documentation of Acquisition Event/Transmission Event in Panorama



Q. PANORAMA DATA ENTRY DETAILS *continued*

If the case **lives in a communal setting or attends child care, school or university**, and follow-up of contacts from these settings is required, create a Transmission Event on the Exposure Summary Screen (under Investigation in the left hand navigation) using the Create Transmission Event button to get to the Maintain Transmission Event Details screen.

Transmission Event > Exposure Name: XXX-NameOfFacility-iGAS where XXX is the Health Authority identifier (FNHA, IHA, VIHA, FHA, or NHA)
Transmission Event Date/Time > Transmission Start: 7 days prior to onset of symptoms
Exposure Location > Exposure Location Name: *same as Exposure Name*
> Exposure Setting Type: "Facility – non-recreational" or "Communal living"
> Exposure Setting: most appropriate selection based on list filtered by Exposure Setting Type
> Address: fill in details for facility

When required, create investigations for **close contacts** of **severe** iGAS cases (refer to [Communicable Disease Control Manual](#)). Contacts can be created as indeterminate clients until all required personal identifiers are known.

^Training Materials and Data Standards: Cohorts-Static-Reference Guide-Shared Services; Client-Maintain-Reference Guide-Shared Services; Policy and Guideline-Client Identity Management-Shared Services; Exposures-Reference Guide-Investigations; Data Standard - Documenting Contacts to a Case; Exposure Summary – Documentation Standard – Investigations; Data Standard - Documentation of Acquisition Event/Transmission Event in Panorama

If the **outcome is death**, record as follows.

Outcome: Death
Outcome Date: Date of death (if known) or date at which user found out about fatal outcome (if date of death unknown)
Cause of Death: Select most appropriate response

After recording the outcome, inactivate the client in the Personal Information screen (under Subject > Client Details on the left hand navigation) following routine procedures/standards.

Note: If the outcome is **not death**, the outcome date is the date public health was made aware of the outcome.

^Data Standard: Outcomes – Documentation Standard – Investigations

^ Please contact your regional Panorama Support Team representative to access these and additional relevant training materials and data standards from the Panorama Solution Partner Portal (<https://panoramacst.gov.bc.ca>).