

## Study Questionnaire

This questionnaire is designed to obtain information about the patient with Hirschsprung disease (HSCR). If you are not the patient please give all the responses on their behalf. We are interested in information on blood relatives only. **If you are unable to answer a question, please leave it unanswered and complete the others.** The study coordinator may contact you at a later date to clarify answers. *Thank you very much for your help and participation!*

### A. PATIENT INFORMATION:

Patient's Name: \_\_\_\_\_

Please indicate the person completing this form (circle one):

Patient    Mother of patient    Father of patient    Medical professional

Other \_\_\_\_\_

Patient's date of birth:        \        \        (mm\dd\yyyy)

Patient's gender (circle one)    Male                      Female

Ethnicity: Hispanic/Latino?    \_\_\_ yes    \_\_\_ no

Race (circle all that apply):

American Indian/Alaska Native    Asian    Black/African American

Native Hawaiian/Other Pacific Islander    White    Unknown

### B. CONTACT INFORMATION:

Name of parent(s) or guardian(s) if patient is a minor or an adult with a Legally Authorized

Representative: \_\_\_\_\_

Patient's Current Address: \_\_\_\_\_

\_\_\_\_\_

Telephone Number: (home) \_\_\_\_\_ (mobile) \_\_\_\_\_

(work) \_\_\_\_\_ who works at this number \_\_\_\_\_

Email address: \_\_\_\_\_

**C. PATIENT'S HIRSCHSPRUNG DISEASE DIAGNOSIS**

1. Age of patient when Hirschsprung disease was diagnosed:
2. What were the major symptoms at the time of diagnosis (newborn bowel blockage, distension and difficulty feeding, chronic constipation, enterocolitis (diarrhea, fever, infection in the bowel, other)?
3. How was the diagnosis made? (rectal biopsy, barium enema, other?)
4. Where was the transition zone (area where diseased colon ended and healthy colon with nerve cells began)? Was it in the rectum, rectosigmoid region, sigmoid colon, descending colon, transverse colon, ascending colon, distal small bowel, proximal small bowel?

5. How many inches or centimeters of the colon were affected?

6. Has the patient ever had episodes in which 5 or more of the following symptoms were present?

- Diarrhea with explosive stool
- Diarrhea with foul smelling stool
- Diarrhea with bloody stool
- Explosive discharge of gas and stool when the doctor did a rectal exam
- Distended abdomen
- Patient was very pale
- Patient was very tired, lethargic or listless
- Fever

*If yes,*

How many episodes occurred before any surgery for Hirschsprung disease? \_\_\_\_\_

How many occurred after one or more surgeries for Hirschsprung disease? \_\_\_\_\_

7. Has the patient ever been admitted to the hospital with severely deteriorated general condition, fever, or low blood pressure when they had diarrhea and abdominal distention?  
\_\_\_ yes \_\_\_ no

*If yes,*

How many times did this occur before any surgery for Hirschsprung disease? \_\_\_\_\_

How many times did this occur after one or more surgeries for Hirschsprung disease? \_\_\_\_\_

8. Has the patient ever been told by a doctor that they had any kind of enterocolitis?  
\_\_\_ yes \_\_\_ no

***If the patient has not yet had surgery, please skip to section D.*** Below are questions about possible complications occurring after surgery. Many of these are uncommon, but it is helpful to our research to know about any complications. Some questions may not apply if the patient did not have a pull-through. Please answer any that apply to the patient.

9. What operation did the patient have (Swenson, Transanal Swenson-type, Soave, Transanal Soave-type, Duhamel, Martin, Kimura, or other)?

Was the surgery done by:

Laparotomy (large abdominal incision)? \_\_\_\_\_yes \_\_\_\_\_no

Laparoscopy (small, keyhole incisions)? \_\_\_\_\_yes \_\_\_\_\_no

10. Did the patient have a colostomy or ileostomy? \_\_\_\_ yes \_\_\_\_ no

*If yes*, do they still have it \_\_\_\_\_ was it before a pull-through operation \_\_\_\_\_

11. What was the patient's age at the time of surgery/surgeries?

12. Has the patient had incontinence or difficulty controlling stools after surgery?

\_\_\_\_\_ yes \_\_\_\_\_ no

*If yes*, How many times per week did this occur? \_\_\_\_\_

Has it improved \_\_\_\_\_ stayed the same \_\_\_\_\_ or resolved \_\_\_\_\_ over time?

13. Has the patient had significant constipation requiring laxatives or enemas after surgery?

\_\_\_\_\_ yes \_\_\_\_\_ no

*If yes*, Has it improved \_\_\_\_\_ stayed the same \_\_\_\_\_ or resolved \_\_\_\_\_ over time?

14. Has the patient required a repeat pull-through operation?

\_\_\_\_\_ yes \_\_\_\_\_ no

*If yes*, What was the reason for it? A narrowing of the pull-through \_\_\_\_\_ Still had no ganglion (nerve) cells \_\_\_\_\_ A technical problem with the first operation \_\_\_\_\_

*If yes*, What type of surgery was the repeat pull-through (Swenson, Transanal Swenson-type, Soave, Transanal Soave-type, Duhamel, Martin, Kimura, or other)?

Was the surgery done by:

Laparotomy (large abdominal incision)? \_\_\_\_\_yes \_\_\_\_\_no

Laparoscopy (small, keyhole incisions)? \_\_\_\_\_yes \_\_\_\_\_no

15. Has the patient ever had a myectomy (cutting of the sphincter muscle)? \_\_\_\_ yes \_\_\_\_ no

*If yes*, Did it improve the patient's symptoms?

16. Has the patient ever had an injection of botox? \_\_\_\_ yes \_\_\_\_ no

*If yes, Did it improve the patient's symptoms?*

17. Did the patient have problems with a severe rash on the skin around the anus after the surgery? \_\_\_\_ yes \_\_\_\_ no

18. Did the patient have any other complications during or after the pull-through surgery?  
\_\_\_\_ yes \_\_\_\_ no

*If yes,*

Bleeding requiring a transfusion? \_\_\_\_ yes \_\_\_\_ no

Bowel blockage or obstruction? \_\_\_\_ yes \_\_\_\_ no

Hernia in the incision? \_\_\_\_ yes \_\_\_\_ no

Infection in the incision? \_\_\_\_ yes \_\_\_\_ no

Infection in the abdominal cavity? \_\_\_\_ yes \_\_\_\_ no

Leakage from a suture line or staple line? \_\_\_\_ yes \_\_\_\_ no

Scarring or stricture of a suture line or staple line resulting in a blockage? \_\_\_\_ yes \_\_\_\_ no

Other? \_\_\_\_\_

*Survey continues on next page...*

**D. PATIENT'S CHILDREN**

**\*Complete this section ONLY if the patient has children**

Does the individual with Hirschsprung disease (the patient) have any children?    yes    no

(If yes, please complete the following chart. DOB – date of birth in mm/dd/yyyy; Living? – answer yes or no, if deceased, please indicate age and cause of death; HSCR – Hirschsprung disease, answer yes or no; CSC – chronic severe constipation, answer yes or no and if yes, indicate bowel movements per week)

| Name | Sex | DOB | Living? | HSCR | CSC |
|------|-----|-----|---------|------|-----|
|      |     |     |         |      |     |
|      |     |     |         |      |     |
|      |     |     |         |      |     |
|      |     |     |         |      |     |
|      |     |     |         |      |     |

Do all of the children listed above share the same mother and father?    yes    no  
(If not, please indicate if they are related through the mother or the father.  
\_\_\_\_\_ )

Please answer the following questions on behalf of the above listed children's biological parent who is **not** the patient with Hirschsprung disease on whose behalf the questionnaire is being completed.

Parent's name \_\_\_\_\_

Parent's date of birth \_\_\_\_\_

Does the parent have Hirschsprung disease or chronic constipation?    yes    no  
(If yes, please explain \_\_\_\_\_  
\_\_\_\_\_ )

**E. PATIENT’S PARENTS:**

Please complete the chart below about the patient’s parents.

(DOB – date of birth in mm/dd/yyyy; Living? – answer yes or no, if deceased, please indicate age and cause of death; HSCR – Hirschsprung disease, answer yes or no; CSC – chronic severe constipation, answer yes or no and if yes, indicate bowel movements per week)

| Name   | DOB | Living? | HSCR | CSC |
|--------|-----|---------|------|-----|
| Father |     |         |      |     |
| Mother |     |         |      |     |

**F. PATIENT’S BROTHERS OR SISTERS**

Does the patient have brothers or sisters?                      yes                      no

(If yes, please complete the following chart. DOB – date of birth in mm/dd/yyyy; Living? – answer yes or no, if deceased, please indicate age and cause of death; HSCR – Hirschsprung disease, answer yes or no; CSC – chronic severe constipation, answer yes or no and if yes, indicate bowel movements per week)

| Name | Sex | DOB | Living? | HSCR | CSC |
|------|-----|-----|---------|------|-----|
|      |     |     |         |      |     |
|      |     |     |         |      |     |
|      |     |     |         |      |     |
|      |     |     |         |      |     |
|      |     |     |         |      |     |

Do all of the above individuals share the same mother and father?                      yes                      no  
 (If not, please indicate in the margin for each if they share a mother, father or both with the patient.)

**G. PATIENT'S GRANDPARENTS:**

*Please fill in as much information as you know.*

**FATHER'S SIDE:**

(DOB – date of birth in mm/dd/yyyy; Living? – answer yes or no, if deceased, please indicate age and cause of death; HSCR – Hirschsprung disease, answer yes or no; CSC – chronic severe constipation, answer yes or no and if yes, indicate bowel movements per week)

| Name        | DOB | Living? | HSCR | CSC | Ancestry |
|-------------|-----|---------|------|-----|----------|
| Grandfather |     |         |      |     |          |
| Grandmother |     |         |      |     |          |

**MOTHER'S SIDE:**

(DOB – date of birth in mm/dd/yyyy; Living? – answer yes or no, if deceased, please indicate age and cause of death; HSCR – Hirschsprung disease, answer yes or no; CSC – chronic severe constipation, answer yes or no and if yes, indicate bowel movements per week)

| Name        | DOB | Living? | HSCR | CSC | Ancestry |
|-------------|-----|---------|------|-----|----------|
| Grandfather |     |         |      |     |          |
| Grandmother |     |         |      |     |          |

**H. PATIENT'S AUNTS AND UNCLES:**

*Please fill in as much information as you know.*

Please list all the brothers/sisters of the **patient's father**. (DOB – date of birth in mm/dd/yyyy; Living? – answer yes or no, if deceased, please indicate age and cause of death; HSCR – Hirschsprung disease, answer yes or no; CSC – chronic severe constipation, answer yes or no and if yes, indicate bowel movements per week)

| Name | Sex | DOB | Living? | HSCR | CSC |
|------|-----|-----|---------|------|-----|
|      |     |     |         |      |     |
|      |     |     |         |      |     |
|      |     |     |         |      |     |
|      |     |     |         |      |     |
|      |     |     |         |      |     |

Please list all the brothers/sisters of the **patient's mother**:

| Name | Sex | DOB | Living? | HSCR | CSC |
|------|-----|-----|---------|------|-----|
|      |     |     |         |      |     |
|      |     |     |         |      |     |
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Is there any additional family history that you feel may be helpful to us?

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**I. PATIENT’S MEDICAL INFORMATION:**

Please check a box to indicate if the patient has had any of the below listed medical evaluations. If yes, please note any known results.

| Evaluation                                  | Has Patient Had?   | Results |
|---|--|---------|
| Examination by Clinical Geneticist          | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> Unknown |         |
| Examination by Neurologist                  | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> Unknown |         |
| Examination by Ophthalmologist (eye doctor) | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> Unknown |         |
| Chromosome Analysis or Genetic Testing      | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> Unknown |         |
| Echocardiogram (ultrasound of the heart)    | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> Unknown |         |
| Ultrasound of kidneys or other organs       | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> Unknown |         |
| IQ or Developmental Evaluation              | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> Unknown |         |
| CT scan or MRI of the brain                 | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> Unknown |         |
| Hearing Evaluation                          | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> Unknown |         |
| Other – please explain                      |  |         |

**J. MEDICAL FAMILY HISTORY INFORMATION:**

Please indicate (check box) if the **patient and/ or any blood relatives** [this includes brothers, sisters (full or half), parents, children, grandparents, uncles, aunts, nephews, cousins, etc.] is known to have any of the following diagnoses or conditions. If a relative is affected, please indicate how the individual(s) is (are) related to the patient in the space provided. Please give additional information about the diagnosis if requested in the box.

**PAT= patient, REL= relative**

|  |                              |                                    |
|--|------------------------------|------------------------------------|
| Hirschsprung disease   | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Chronic constipation   | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Other intestinal abnormalities<br>(malrotation, hypoganglionosis, IND<br>etc.)                                       | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Please describe type:  |                              |                                    |
| Mental retardation   | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Learning disability  | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Down syndrome  | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Other chromosome abnormality or<br>genetic disorder  | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Please describe:   |                              |                                    |
| Growth retardation (short stature)   | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Epilepsy (persistent seizures)   | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Heart defect   | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Please indicate type:  |                              |                                    |
| Microcephaly (small head)  | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Agenesis of corpus callosum (a type<br>of brain anomaly)   | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Color differences in eyes/skin/hair<br>(light or dark spots on skin, white<br>piece of hair, different colored eyes) | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Please describe:   |                              |                                    |
| Cleft lip and/or palate  | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Ptosis (drooping eyelids)  | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Skeletal abnormalities (problems with<br>the bones)  | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Please describe:   |                              |                                    |

|   |                              |                                    |
|---|------------------------------|------------------------------------|
| Kidney problems<br>Please describe:   | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Esophageal atresia (blockage of tube carrying food to stomach)  | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Pyloric stenosis (blockage of outlet from stomach to intestines)  | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Abnormality of internal or external genitals (sex organs) (including undescending testes)<br>Please describe: | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Imperforate anus (closed anus at birth)   | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Club foot   | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Polydactyly (extra fingers or toes)<br>Please describe:   | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Syndactyly (fused/webbed fingers or toes)<br>Please describe:   | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Thyroid cancer<br>Please indicate type (medullary, papillary, etc.):  | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Pheochromocytoma (tumor of adrenal gland)   | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Other tumors or cancers<br>Please indicate type:  | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Hypercalcemia (high blood calcium)  | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Deafness / hearing loss<br>Please give severity and age of onset:   | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Waardenburg syndrome  | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Congenital central hypoventilation/ unable to breathe when asleep / apnea                                     | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |
| Miscarriages or stillbirths<br>Please indicate which and how many:  | <input type="checkbox"/> PAT | <input type="checkbox"/> REL _____ |

Is there any additional information that you feel is relevant or may be helpful to the study? If you need additional space for any of your answers please feel free to write it here.

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Signature of person completing form \_\_\_\_\_

Today's date: \_\_\_\_\_

*Thank you very much for your help and participation.*