Date pedigree taken: (mm/dd/yyyy)

1. Please complete the below questions regarding your biological parents:
   1. Is your biological mother a relative of your biological father?  Yes  No  Unknown
      1. If Yes, specify: First cousin Niece Other, specify:

Biological Parents Data Table

| Parent | Date of Birth  (mm/dd/yyyy) | Diagnosis of MS? | Age at Death  (if applicable) | Cause of Death  (if applicable) | Is this parent a twin? | If Yes, specify |
| --- | --- | --- | --- | --- | --- | --- |
| Mother | (mm/dd/yyyy) | Yes  No  Unknown | (please specify)  Not applicable | (please specify)  Not applicable | Yes  No  Unknown | Monozygotic  Dizygotic  Unknown |
| Father | (mm/dd/yyyy) | Yes  No  Unknown | (please specify)  Not applicable | (please specify)  Not applicable | Yes  No  Unknown | Monozygotic  Dizygotic  Unknown |

1. Are you a twin?  Yes  No  Unknown
   1. If Yes, what type of twin?  Identical Twin  Fraternal Twin
   2. Is your twin alive? If no, specify age at death:
2. Are you adopted?  Yes  No  Unknown
   1. If Yes, age at time of adoption: (please specify)  Months  Years  Unknown
3. Do you have any adopted children who were adopted before age 1?  Yes  No  Unknown
4. Do you have any adopted siblings who were adopted before age 1?  Yes  No  Unknown
5. Have any of your siblings been diagnosed with MS?  Yes  No  Unknown

If Yes, complete a row for each sibling diagnosed with MS.

Sibling Information Data Table

| Sib # | Date of Birth  (mm/dd/yyyy) | Gender | Full Sibling | Maternal Half Sibling | Paternal Half Sibling | Adopted Sibling | Step Sibling |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Data to be entered by site | (mm/dd/yyyy) | Male  Female | Yes  No | Yes  No | Yes  No | Yes  No | Yes  No |
| Data to be entered by site | (mm/dd/yyyy) | Male  Female | Yes  No | Yes  No | Yes  No | Yes  No | Yes  No |

Additional rows can be added as needed.

Include all live births, including those who died shortly after birth

Include only adopted and/ or step siblings who live with the proband

1. If you are married, has your spouse been diagnosed with MS?  Yes  No  Unknown  Not applicable
2. Do you have any children who have been diagnosed with MS?  Yes  No  Unknown

If Yes, specify total number of children diagnosed with MS: (please specify)

1. Do you have any aunts and/or uncles who have been diagnosed with MS?  Yes  No  Unknown
   1. If Yes, specify total number of aunts with MS: (please specify)
   2. If Yes, specify total number of uncles with MS: (please specify)
2. Do you have any first cousins who have been diagnosed with MS?  Yes  No  Unknown

If Yes, specify total number of cousins: (please specify)

1. Please complete a row for each of your relatives diagnosed with MS that were indicated above:

Affected Relatives Information Data Table

| ID | Gender | Date of Birth  (mm/dd/yyyy) | Age at Death  (if applicable) | Cause of Death  (if applicable) | Relationship Details  (how related to MS index case): | Age at onset of MS |
| --- | --- | --- | --- | --- | --- | --- |
| Data to be entered by site | Male  Female | (mm/dd/yyyy) | (please specify)  Not applicable | (please specify)  Not applicable | Data to be entered by site | Data to be entered by site |
| Data to be entered by site | Male  Female | (mm/dd/yyyy) | (please specify)  Not applicable | (please specify)  Not applicable | Data to be entered by site | Data to be entered by site |

## General Instructions

All elements on this CRF are classified as Supplemental and should be collected if the research team considers them appropriate for their study.

Relationships to be defined as follows:

1 Relationship to person with MS table

| Relationship to Person with MS | Definition with respect to Relationship to Person with MS (Index Case/Proband) | Possible Gender of the Relative |
| --- | --- | --- |
| Mother | Biological Mother (50% genetic sharing) | Female |
| Father | Biological Father (50% genetic sharing) | Male |
| Son | Livebirth, biological son, 50% genetic sharing with parent) | Male |
| Daughter | Livebirth, biological son, 50% genetic sharing with parent) | Female |
| Full Sister | Livebirth, Same biological mother and father  (50% genetic sharing) | Female |
| Full Brother | Livebirth, Same biological mother and father  (50% genetic sharing) | Male |
| Maternal Half Sister | Livebirth, Same Biological mother, different biological father (25% genetic sharing) | Female |
| Maternal Half Brother | Livebirth, Same Biological mother, different biological father (25% genetic sharing) | Male |
| Paternal Half Sister | Livebirth, Same Biological father, different biological mother (25% genetic sharing) | Female |
| Paternal Half Brother | Livebirth, Same Biological Father, different biological mother (25% genetic sharing) | Male |
| Maternal Aunt | Livebirth, Biological sister of MS patient’s biological mother (25% genetic sharing) | Female |
| Maternal Uncle | Livebirth, Biological brother of MS patient’s biological mother (25% genetic sharing) | Male |
| Paternal Aunt | Livebirth, Biological sister of MS patient’s biological father (25% genetic sharing) | Female |
| Paternal Uncle | Livebirth, Biological brother of MS patient’s biological father (25% genetic sharing) | Male |
| Maternal Female 1st Cousin | Livebirth, Biological daughter of Biological sister of MS patient’s biological mother (1/8th genetic sharing) | Female |
| Maternal Male 1st Cousin | Livebirth, Biological son of Biological brother of MS patient’s biological mother (1/8th genetic sharing) | Male |
| Paternal Female 1st Cousin | Livebirth, Biological daughter of Biological sister of MS patient’s biological father (1/8th genetic sharing) | Female |
| Paternal Male 1st Cousin | Livebirth, Biological son of Biological brother of MS patient’s biological father (1/8th genetic sharing) | Male |

## Specific Instructions

Please see the Data Dictionary for definitions for each of the data elements included in this CRF Module*.*

Affected with MS (“Affected Relative”) –

Yes, medical record confirmed: Confirmed by medical records or autopsy report. Study design/diagnostic criteria choice can dictate degree of certainty to call an individual affected.

Yes, per patient history: Relative is affected according to patient.

No: Up to death, no signs or symptoms suggestive of MS. Some study designs may allow age corrected risks to consider current age and/or age at death

Uncertain/Unknown: Possible use Wheelchair/walking aid, no other information; no further information can be obtained.

Twin – Include if known, even if co-twin not liveborn

Twin – Zygosity Unknown: Often do not know zygosity if one twin is lost

Monozygotic Twin (MZ) – Same sex; essentially 100% genetic sharing

Dizygotic Twin (DZ) – Same or different sexes; 50% genetic sharing as with full brothers and sisters

First Cousins – This group can be somewhat difficult to trace because of geographic mobility within families. This group should be collected if possible as they represent a “similar generational cohort” to the index case/proband. If specifics not known, try to get total denominator for maternal and paternal 1st cousins, even if gender/age is unknown; 1st cousin data collection can be biased to affected individuals and thus denominators are important.

Nieces/Nephews – Because of age with respect to the index case/proband, this group is most comparable with children of patients and so there is usually a large “remaining risk” to develop MS at the time of study. In addition, given the general geographic mobility of families, these individuals are often hard to trace or individually identify. Thus, for a CRF, inclusion is a luxury rather than a necessity.