SEARCH 4 MOP
Section 9 - Initial Participant Survey
Table of Contents

9. Initial Participant Survey

9.1. OVERVIEW

The initial participant survey (IPS) is designed to facilitate confirmation of case validation, residence and age eligibility, and uniqueness of the case. In addition, the IPS contains key data, including core information, needed to estimate incidence, facilitate diabetes typing, assess acute complications and processes of care. The IPS also requests contact information, for local use only. The IPS can be administered either by mail or on-line (self-administered) **or** by an interviewer, via telephone or in-person, according to local operational and participant needs. This flexibility is required to maximize response rates and overall data completeness.

9.2. METHODOLOGY

The IPS is designed to act as an introduction to the SEARCH study and is often the first data collected from an individual. In some cases, collection of the IPS may occur even prior to the registration of a case, and is used to determine eligibility for case registration. The IPS may be completed several different ways to accommodate the participant including the following options: a) mailing the form to the participant or the parent/guardian; b) sending the SEARCH website link and instructing the participant to complete the online form; c) by telephone (including use of CATI); and d) administering as an interview. Some sites may mail the IPS to the participant prior to an in-person visit or instruct them to fill out the IPS online before the visit, while others may administer the IPS at a visit if the case has been confirmed using other methods. The method of administration is based on the site's ability and the participant's preference.

Two versions (Participant version and Parent/Legal Guardian version) of the IPS form have been created. The determination of which one to administer is based on the current age of the individual. The Participant version is directed to the individual who is at least 18 years of age; the Parent/Guardian version is directed to the parent or guardian of a participant who is under18 years of age. If there is more than one child in a household with diabetes who may be eligible to participate in SEARCH, one form should be completed for each child.

A $10 incentive is provided after the completion of the IPS.

9.2.1. *Questionnaire - Return of IPS by mail*

- A completed IPS can be returned to the site by mail in a pre-paid envelope at which time the staff should review the questionnaire for completion and content.

- If it is determined that the participant is eligible for a Registry study visit, study staff should contact the participant or parent/guardian to schedule the visit.

- If the IPS is unclear or incomplete, staff should contact the individual who completed the form for clarification or this can be addressed at the in-person visit (if the participant is eligible for a Registry study visit).

9.2.2. *Questionnaire - Telephone administered*

- An introductory letter may provide the participant or parent/guardian the ability to contact the clinic to complete the IPS via telephone.

- Trained clinic personnel will administer the questionnaire to the appropriate individual and carefully read all questions on the IPS documenting the responses. *(Please see Section 2 - Interviewing)*

9.2.3. *Questionnaire - In-person interview*

- Instances may occur where the individual cannot or prefers not to complete the IPS on their own OR receives the questionnaire as part of a visit to a health care provider's office. In those cases an in-person visit can be scheduled to complete the IPS.

- If the IPS is collected via interview, read all questions in an unbiased manner and carefully document the responses. *(Please review Section 2 - Interviewing)*

9.2.4. *Questionnaire - IPS completed online*

- Questionnaires completed online will be automatically available for staff review. These questionnaires should be checked for completion and content.

- If it is determined that the participant is eligible for a Registry study visit, study staff should contact the participant or parent/guardian to schedule the visit.

- If the IPS is unclear or incomplete, staff should contact the individual who completed the form for clarification or this can be addressed at the in-person visit (if the participant is eligible for a Registry study visit.)

9.3. QUESTIONNAIRE ADMINISTRATION

The following can be used if the survey is administered by interview or when reviewing the questionnaire for completeness. It is estimated that this form should take approximately 15 minutes to complete.

- *Question 1* - enter the date the questionnaire is completed. Note: this date may not coincide with the date of the registry study visit. Only one digit should be placed in each box.

  Example: If the questionnaire is completed on June 22, 2002 - the date should be entered as

  1. What is today's date?

0	6		2	2		2	0	0	2
Month			Day			Year			

- *Question 2* - check the box that defines the Participant's gender

- *Question 3* - asks if the participant has been told they have diabetes. **Note: If the response is "NO," do not continue completing the form - the individual is not eligible for the study, however, the person's name may be retained for the Tracking Database to be used for validation purposes.**

- *Question 4* - Enter the participant's date of birth. If missing, attempt to determine the birth date. This field is required to determine eligibility for the study. A participant cannot be registered without having date of birth documented.

- *Question 5* - Enter the date the participant was first diagnosed with diabetes. If the full date is not available, attempt to determine the month and/or year of diagnosis.

  - If the Day of diagnosis is unknown, enter **[-9]**.

  - If the Month of diagnosis is unknown, enter **[-9]**.

  - If the Year of diagnosis is unknown, enter **1800**.

- *Question 6* - asks how the participant or parent/guardian first learned the individual had diabetes. Read each selection to the respondent answering "Yes" or "No" to each.

  - **[1]** Asks about polydypsia, polyuria or a reduced immunity leading to a higher incidence of illness.

  - **[2]** Asks if diabetes was found in a school or regular physical.

  - **[3]** Asks if the participant found out they had diabetes through a blood sugar screening at school or a health fair.

  - **[4] [5]** Asks if the participant found out they had diabetes during pregnancy. Response four attempts to determine if the case is an actual case of diabetes and response five attempts to determine if the case is a case of gestational diabetes.

    Note: It is acceptable to check more than one response with the exception of diabetes continuing or ceasing after the pregnancy is completed. It is important for eligibility for only one of these selections be answered. If diabetes was diagnosed during pregnancy and "did not go away," the Participant is eligible. If diabetes was diagnosed during pregnancy and "went away later," this would be a case of gestational diabetes and therefore NOT eligible.

  - **[6]** If there are additional methods by which the Participant was determined to have diabetes, please write them in the box provided. Example: polycystic ovary syndrome (PCOS).

- *Question 7* - asks if a provider told the participant what type of diabetes they had. Respond to one of the five options available, including Don't Know.

- *Question 8* - asks if the participant was told their diabetes was caused by cystic fibrosis, cancer or medication used to treat cancer, or by another type of medication. Respond "Yes" or "No" to each question.

  - If the response is "Yes," to other medications, specify in the line provided, what the medication was, if known.

    - If the information is not known and you will not be able to obtain it, enter **[-9]**.

  - Some medications that have been associated with potentially causing diabetes are:

Vacor	Diazide
Pentamidine	Beta-adrenergic agents
Nicotinic acid	Thiazides
Glucocorticoids	Dilantin
Thyroid hormone	Gamma interferon

- *Question 9* - asks if the participant has ever taken insulin. Respond "Yes" or "No." *Note: If the* participant *indicates they took insulin **ONLY** before diabetes diagnosis, the response should be changed to "No."* If the participant answers "Yes," they should answer Question 9a and 9b.

  - *Question 9a* - asks if the participant was taking insulin two weeks after diagnosis. Respond "Yes" or "No." If the IPS is being completed prior to two weeks after diagnosis, code this as missing data (-9).

  - *Question 9b* - asks if they are currently taking insulin. Respond "Yes" or No."

- *Question 10* - asks how the participant currently treats their diabetes. Respond "Yes" or "No" to selections provided. If "Other" is selected, please specify what type of treatment is used.

- *Question 11* - asks the individual if the participant is Spanish, Hispanic/Latino. If the response is "Yes, other Spanish/Hispanic/Latino," the group should be printed in the available spaces - one letter per space.

- *Question 12* - asks about the participant's race. More than one box may be selected to reflect a mixed racial individual. If the participant is an American Indian, Alaska Native, other Asian or Pacific Islander, print the name of the associated group in the assigned box. Enter only one character into a single box.

Questions 13 through 14 assist in determining the eligibility of the participant.

- *Question 13* - asks where the participant lived when they first got diabetes. For geographic-based sites, if the participant did not live in your site's defined incidence area at diagnosis, you should inquire whether they moved to the incidence area in the calendar year of diagnosis.

- *Question 14* - asks if the participant was a member of the military when they first got diabetes.

- *Question 15* - asks for current weight in pounds or kilogram. Make sure the number written down corresponds to the appropriate measurement scale. Mark an X in the box if the individual doesn't know.

- *Question 16* - asks for current height. Record both height in feet and inches, or centimeters. If the participant provides height in total inches, convert this number to feet and inches. For example, if the person says they are 50 inches, record their height as 4 feet, 2 inches. Put a zero for inches if they report their height only in feet. For example, if the person reports that they are 5 feet tall, record their height as 5 feet, 0 inches. Mark an X in the box if the Participant doesn't know.

Questions 17 through 21 are going to ask some family history of diabetes. Information about the child's mother, father, brothers and sisters will be collected. This refers to the child's biological or natural parents (not step-parents or adoptive parents) and the child's full or half brothers and sisters, not those who were adopted or step brothers or step sisters. Additionally, include information for relatives who are living and those who are deceased.

- *Question 17* - asks if the participant's biological mother had/has diabetes. Record "Yes", "No", or "Don't Know." If the participant answers "Yes", they should answer question 17a.
    - *Question17a* - asks how old the participant's biological mother was when she was diagnosed with diabetes. Record age in years or mark "Don't Know."

- *Question 18* - asks if the participant's biological mother had any form of diabetes when she was pregnant with the participant. They are not required to differentiate between types. Record "Yes", "No", or "Don't Know."

- *Question 19* - asks if the participant's biological father had/has diabetes. Record "Yes", "No", or "Don't Know." If the individual answers "Yes", they should answer question 19a.
    - *Question 19a* - asks how old the participant's biological father was when he was diagnosed with diabetes. Record age in years or mark "Don't Know."

- Question 20 - asks if the participant has any full or half-brothers. Record "Yes", "No", or "Don't Know." If the Participant answers "Yes", they should answer question 20a.

    o *Question 20a* - asks how many full or half-brothers the Participant has. Record the numeric answer on the line provided.

    o *Question 20b* - asks how many full or half-brothers have diabetes. Record the numeric answer on the line provided. **Note: The answer to this question should not be more than the answer to question 20a.**

- Question 21 - asks if the participant has any full or half-sisters. Record "Yes", "No", or "Don't Know." If the individual answers "Yes", they should answer question 21a.

    o *Question 21a* - asks how many full or half-sisters the participant has. Record the numeric answer on the line provided.

    o *Question 21b* - asks how many full or half-sisters have diabetes. Record the numeric answer on the line provided. **Note: The answer to this question should not be more than the answer to question 21a.**

- *Questions 22a-h* - asks what types of health insurance the participant has now. Record "Yes" or "No" for each insurance type.

- *Question 23a-h* - asks what types of health insurance the participant had when diagnosed with diabetes. Record "Yes" or "No" for each insurance type.

- *Question 24* - asks who does the child usually go to for most of his/her care related to diabetes? Respond to one of the seven options available, including Unsure.

- *Question 25a-g* - asks the highest educational degree or level of school obtained by the Participant's mother/guardian and father/guardian. The "Young Adult" version also asks about the participant. Record one of the seven options, including "Don't Know."

- *Question 26* - asks for the participant's total household income in the past 12 months. Record one of the 10 options, including "Don't Know."

- *Question 27a-c-* asks about the people living in the participant's household. Record the numeric value for each question.

    o *Question 27a* - asks for total number of people

    o *Question 27b* - asks for the total number of children

    o *Question 27c* - asks for the total number of adults. If the individual answers more than 0, record the number of adults who bring income into the household.

- *Question 28* - asks if the participant with diabetes was born in the United States. If the response is "Yes," proceed to question 29, if "No" proceed to 28a and 28b, if "Don't Know/prefer not to say" proceed to question 29.

    o *Question 28a* - asks in what country the participant was born

    o *Question 28b* - asks in what year did the participant come to the United States

- *Question 29* - asks if the mother of the participant with diabetes was born in the United States. If the response is "Yes," to proceed to question 30, if "No" proceed to 29a and 29b, if "Don't Know/prefer not to say" proceed to question 30.

    o *Question 29a* - asks in what country the participant's mother was born

    o *Question 29b* - asks in what year did the participant's mother come to the United States

- *Question 30* - asks if the father of the participant with diabetes was born in the United States. If the response is "Yes," proceed to Contact Information, if "No" proceed to 30a and 30b, if "Don't Know/prefer not to say" proceed to contact information.

    o *Question 30a* - asks in what country the participant's father was born

    o *Question 30b* - asks in what year did the participant's father come to the United States

9.3.1. *Contact Information*

A space to collect contact information is included at the end of the IPS. This information is to be kept at the local site ONLY and is not to be sent to the Coordinating Center. This information is used to contact the participant for SEARCH data collection and potential future studies.

- *Section A* - This section is to determine the participant's name as well as any other names they may be or have been known by. This information may be used to contact the Participant for data collection and potential future SEARCH-related studies.

- *Section B* - This section asks about names for parents or guardians.

- *Section C* - This section asks about contact information such as current mailing address and telephone numbers. The telephone number denoted as "best" is to determine the most appropriate number at which the participant can be contacted. There are two additional spaces for telephone numbers denoted by "other." These can refer to other numbers such as home, work, cell phone, or any other numbers that study personnel may contact the participant. Additionally, this section asks about:

    o Electronic contacts

- o Persons the participant lives with at the specified address

- o The usual language spoken by the participant.

9.3.2. *Alternate Contact Information*

Asks for two additional people's names, addresses, phone numbers, and email addresses that study personnel may use to contact the participant if the address or phone number of the participant is no longer valid.

9.4. ALGORITHMS FOR SEX, DOB, DATE OF DIAGNOSIS, RACE/ETHNICITY

Below are the hierarchies as outlined in the **December 2012 SEARCH Technical Report on Algorithm Updates**. The complete technical report can be found in Appendix A.

RACE:

1. IPS

2. MRAF (only collected in SEARCH 1)

3. CORE/Extended CORE

DATE OF BIRTH:

1. IPS

2. Extended CORE (available on SEARCH 3 Ext. Core form only)

3. TDB (data on DOB from TDB will not be available in the future)

DATE OF DIAGNOSIS:

1. MRAF (SEARCH 1) /Ext. CORE

2. TDB (data on date of DX from TDB will not be available in the future)

3. IPS

4. Casestat year (This is a TDB variable which indicates the year of diagnosis)

GENDER:

1. IPS

2. CORE/Ext. CORE

3. TDB (data on gender from TDB will not be available in the future)

9.4.1. *All Potential Queries, including those related to the above hierarchies*

1 = 'Undefined DM type - meaning no Type information from any source in hierarchy'

2 = 'Indicated as a Prev2009 case in the TDB, but missing Prev2009 DM type information in the TDB'

3 = 'Has Prev2009 DM type information in the TDB, but not indicated as a Prev2009 case in the TDB'

4 = 'Missing casestatus'

5 = 'Discrepancy between secondary box in TDB and DM type = Secondary per hierarchy'

6 = 'Gender = Male, but has been pregnant on Supplemental questionnaire (Q50)'

7 = 'Gender = Male, but is pregnant on the Specimen collection form (Q5)'

8 = 'Gender = Male, but is currently menstruating on the Specimen collection form (Q6)'

9 = 'Gender = Male, but was menstruating during the 1st morning void on the Specimen collection form (Q7)'

10 = 'Ext. Core Q7 - DM type closest to diagnosis = OTHER, but specify field is missing'

11 = 'Ext. Core Q7 - DM type closest to diagnosis = OTHER, but specify field CODE is missing'

12 = 'Ext. Core Q7 - DM type at six months = OTHER, but specify field is missing'

13 = 'Ext. Core Q7 - DM type at six months = OTHER, but specify field CODE is missing'

14 = 'More than one entry on the IPS'

15 = 'More than one entry on the Ext. CORE'

16 = 'More than one entry on the Medication Inventory'

17 = 'More than one entry on the Health Questionnaire'

18 = 'More than one entry on the CESD Form'

19 = 'More than one entry on the SphygmoCor Form'

20 = 'More than one entry on the Food Frequency Questionnaire'

21 = 'More than one entry on the Low Blood Sugar Survey - Young Adult'

22 = 'More than one entry on the Tanner Stage Form - Female'

23 = 'More than one entry on the Tanner Stage Form - Male'

24 = 'More than one entry on the Eye Vision History Form'

25 = 'More than one entry on the Family Medical History Form'

26 = 'More than one entry on the Neuropathy Screening Instrument'

27 = 'More than one entry on the Supplemental Questionnaire'

28 = 'More than one entry on the Diabetes Eating Problems Survey'

29 = 'More than one entry on the Quality of Care Survey'

30 = 'More than one entry on the Physical Exam Form'

31 = 'More than one entry on the Participating Relatives Form'

32 = 'Missing registration date'

33 = 'Gender = Female per IPS, but completed male tanner stage form'

34 = 'Gender = Male per IPS, but completed female tanner stage form'

35 = 'Race information missing from all sources (IPS, MRAF, CORE, TDB)'

36 = 'Lab data available but no Specimen Collection form'

37 = SEARCH 1/2 participant completing SEARCH 3 Extended Core, IPS, or Medication Inventory form

38 = Medication Inventory, Health questionnaire, CESD, SphygmoCor, FFQ, Low Blood Sugar Survey, Tanner Stage, PedsQl, Diabetes Related Family conflict, Eye Vision history, Family Medical History, Neuropathy Screening, Diabetes QOL scale, Supplemental questionnaire, diabetes eating problems survey, QOC – filled out prior to S3 start date (11/7/11)

39 = Core or IPS form completed prior to beginning of incident year

40 = Missing form date information

41 = S3 registry participant completing S3 cohort form

42 = for cohort participants check that form date is not prior to start of S3; for registry participants check that form date is not prior to incident year for: consents form, unanticipated occurrence/condition reporting, physical exam, participating relatives, lab data, and specimen collection

43 = Missing DOB across all sources (tracking, IPS, core)

44 = If DOB (year) is different in any 2 sources (tracking, IPS, core)

45 = if DOB (month) is >= 6 month difference in any 2 sources (tracking, IPS, core)

46 = If missing DOB month – check IPS and CORE only – unless TDB is only source then check that too

47 = If missing DOB year – check IPS and CORE only – only check TDB for missing year if CORE is missing

48 = Missing DX date across all sources (tracking, IPS, core, MRAF)

49 = if DX date (year) is different in any 2 sources (tracking, IPS, core, MRAF)

50 = if DX date (month) is >= 6 month difference in any 2 sources (tracking, IPS, core, MRAF)

We do NOT check for month discrepancy in prev01 cases

51 = if missing DX month – check IPS, core, MRAF

We only check for missing month in TDB if CORE and MRAF are missing

We do NOT check for missing month for prev01 and prev09 cases

For inc02-inc09 cases we only check for missing month on IPS if it's missing in tracking, CORE and MRAF

52 = if missing DX year – MRAF, CORE, IPS, tracking

We only check for missing DX year in tracking if CORE and MRAF are missing; and case stat is not prev01 or prev09 only

For inc02-inc09 cases we only check for missing year on IPS if MRAF an CORE are missing

53 = Missing gender across all sources (tracking, core, IPS)

54 = If there is a gender discrepancy between any 2 sources (tracking, core, IPS)

55 = Case stat year different than DX date from hierarchy

56 = Registration date earlier than dx date

57 = Age on 12/31 of index year > 19

58 = Age on 12/31 of index year < 0

59 = Negative age at diagnosis

The CoC only allows discrepancies for missing race, missing DM type, date of birth and date of diagnosis queries. The sites should e-mail Scott Isom or Jeanette Stafford at the CoC to remove discrepancies from the report. Note that, in the future, the data uploaded to the CoC from the TDB will not include race, gender, date of birth, and date of diagnosis information. This information source will be removed in data checks.

Appendix A - Technical Report on Algorithm Updates

Registry Oversight Committee (ROC)

December 10, 2012

Working group of ROC: Dick Hamman, Dana Dabelea, Lisa Testaverde, Harp Takhar, Jean Lawrence, Beth Loots, Debbie Standiford, Beth Mayer-Davis, Joan Thomas, Ralph D'Agostino, Scott Isom, Susan Moxley, Jenn Talton, Ken Wilson

This report updates recommendations from the following other technical reports:

SEARCH_Technical_Report_RaceEthnicity_040508.doc
Core_information 12-19-03 DP.pdf

Algorithm for provider type and other observations

Background

We have explored the way the provider type algorithm and those for race, date of birth, date of diagnosis, and sex are being used currently (in SEARCH 1-3). A working group of ROC was formed to investigate these issues and make these recommendations after review of data and several conversations. The principle finding of the group is that the tracking database has become a major source of data entry for 'core' variables over time. This has allowed the various medical record forms used for data collection to be (in some cases) incompletely entered, or not updated if new information was identified or corrected. **The committee reaffirms the principle that core variables (including type of diabetes from the medical provider, sex, date of birth, and date of diagnosis) must come from sources other than the tracking data base (TDB). Subsequent updates or edits must correct the proper forms, rather than using the TDB.**

In addition, there were specific steps in the current provider type algorithms that did not appear to maximize the use of medical record data (regardless of form name), and in which the order of checking various forms seemed incorrect. These have been corrected in the recommendations below.

Because a large amount of data already exists from SEARCH 1 and 2, and early SEARCH 3, the working group also recognizes that a substantial amount of work would be required to query and change past forms. Thus, this proposal continues to utilize data from the TDB in the past, but proposes eliminating it going forward.

Rather than review all the data and discussions that led up to these recommendations, the current algorithms and the proposed changes are summarized here, with annotations. We recommend changes to 3 provider type algorithms: for past cases (2001-2009), for 2009 prevalent cases, and for incident cases 2010-2015. Because the operationalization of these requires a single algorithm across all cases, regardless of when they were identified, there are implementation notes after each section, which briefly describe how the CoC will implement these changes.

Algorithm for PROVIDER TYPE prior to this review	Comments
	The algorithm is hierarchical – so that if one step does not result in a clear type, it defaults to the next, etc. When a type other than 'other, unknown, or missing' is found, it stops.
1. Secondary cases from TDB = YES	This is a separate field in the TDB (tracking data base) that was intended to alert sites to participants who did not require a visit since their DM was 'secondary'. It is currently the first step in the algorithm and overrides all other data from records. Analysis indicates that it agrees with the TDB 'presumed diabType' field 57% of the time. This indicates that sites are not aligning these two fields in the TDB.
2. MRAF, unless type = other/missing, then	Medical record abstraction form (MRAF 12/1/03) Q. 23, used in SEARCH 1, 2001-2005 (with 3 additional cases having data:1 in 2006, 2 in 2009)
3. Core form Q5a/6, unless type = other/missing, then	Original 'core core' form (9/24/03), used to update core information from MRAF in SEARCH 1. Starting with SEARCH 2, the extended core form had a Q. 6, identical to Q. 5a.
4. Core form Q6a, unless type = other/missing, then	The 'core core' form (9/24/03) also had a Q. 6a – which asked whether another MD provider (other than medical record) had identified a type, and if so, what was it. Using steps 2-4 above gave a type to 13,253 cases from 21,338 (62.1%). This means that the TDB was used for most of the remaining 38%.
5. PresumeDiabType from TDB, unless type = other/unknown/missing, then	This field in the TDB was the location where most sites used their medical record information (>90% of the time), but updated type here rather than correcting forms, and occasionally used IPS information (especially about secondary types). We also identified errors in 2 sites, where fields were not aligned with the CoC field codes (WA), or were missing (CA).
6. Spreadsheet(one-time spreadsheet upload), unless type = other/missing, then	This was a set of corrections made in 2004-05 by several sites. Only 46 cases were using these data (45 from CO, 1 from WA). These fields will be updated on the forms and this step will be removed.
7. Medical record (MRAF), Core (5a/6), Core MD (6a), TDB, or spreadsheet "other" response, if type is still = unknown/missing, then	This is the default to check after all prior steps. In the MRAF and CORE forms, there is also an 'other_specify' field which is not currently evaluated. Among 21,178 active SEARCH 1-3 cases (mid-June 2012), there were 431 records (2%) with some type of information in this field.

8. TDB = Unknown, if type is still = missing, then	There were 255 (1.2%) unknown 'type' out of 21,338 active cases. (Note: active case numbers vary depending on when computer run was completed).
9. Undefined	Final default from all steps above. This indicates having missing DM type information from all sources above. There were 11 undefined (0.05%) out of 21,338 active cases.

PROPOSED algorithm for PROVIDER TYPE For 2001 prevalent, 2002-2009 incident cases	Comments
	The algorithm is also hierarchical as above, but changes the order and use of specified fields as noted below.
1. Core form Q5a/6, unless type=other or missing; if missing then skip to step 3, if type = other, then	Placing this step first allows updated type from the 'core core' form to be used, instead of the MRAF original type. Original 'core core' form (9/24/03), used to update core information from MRAF in SEARCH 1. Starting with SEARCH 2, the extended core form had a Q. 6, identical to Q. 5a.
2. Check 'other_specify' for data=type; if other_specify field code is = to "unknown", then	This allows the provider to indicate what the 'other' type may have been, and often includes information on secondary types of DM. This field requires coding of data prior to use. Most record have been coded using an ADA compliant set of terms, but requires checking prior to use. Note: when type = 'other' in #1, but other_specify field is blank this is coded as "unknown"
3. MRAF = type, unless 'other' or missing; if missing then skip to step 5, if type = 'other', then	Medical record abstraction form (MRAF 12/1/03) Q. 23, used in SEARCH 1, 2002-2005 (with 3 cases having data:1 in 2006, 2 in 2009). Note: Step 4 of current algorithm, Q6a above (type from another MD source than medical record) is proposed to be dropped
4. Check 'other_specify' for data=type; if other_specify field code is = to "unknown", then	New step, as above (#2) from different version of form, with same question. Note: when type = 'other' in #3, but other_specify field is blank this is coded as "unknown"
5. PresumeDiabType from TDB = type, unless "unknown" or missing, then	Recommendation is to continue to use this field from the TDB for 2001-2009 cases, since over time the MOP has been somewhat inconsistent about its use, and sites have used it, when not updating other fields. If it were not used, it would require a lot if late data queries and edits, which would simply come from this field.

6. CORE, MRAF, or TDB "unknown" response; if type is still missing, then	If all previous steps do not indicate a DM type other than "unknown" then use "unknown" as the DM type if indicated as such from one of these 3 sources
7. Undefined	Final default from all steps above. This indicates having missing DM type information from all sources above. Send query to sites if this is the case.
Implementation notes:	The CoC has determined a way in which this algorithm will be corrected. It involves development of a separate database field to add information from the 'other_specify' fields (steps 2 and 4 above). A new DM type variable will be created that incorporates coding of the other_specify field, so that it will not have to be checked directly as part of the algorithm. For example, if a participant has selected "OTHER" on the CORE form and then in the specify field has written "Leprechaunism" then this code would be entered as 401 (per attached coding sheet). Ken would then have this code mapped to DM type = SECONDARY (per coding document) in the CORE form DM type variable rather than DM type = OTHER. So in the final "view" that the CoC will use for the hierarchy (and therefore for analyses) this participant will not have a DM type of "OTHER" with the specify field of "Leprechaunism" but rather it would indicate a DM type of "SECONDARY" in the CORE form. This process is referred to as "up-coding". If MRAF/CORE form indicates "other" but the specify field is left blank then this will be up-coded to "unknown". NOTE: all information prior to the "up-coding" will be stored in the original form view so we will still have the original data available to us (both the specify field and code) – but will use the final view (after up-coding) for the hierarchy and analyses of DM type. So all coding/classifying/up-coding of the 'other, specify' fields is done prior to the actual hierarchy, and we use the new, "up-coded" variable in the hierarchy. This process will simplify the algorithm as follows: 1. Use Core form Q5a/6*, unless type = unknown/missing then… 2. Use MRAF Q23*, unless type = unknown/missing then… 3. Use TDB presumediabtype, unless type = unknown/missing then… 4. Use "unknown" from CORE, MRAF, or TDB, if still missing then… 5. Undefined DM type (query sites if this is the case) *using "up-coded" variables

PROPOSED algorithm for PROVIDER TYPE **For 2009 prevalent cases**	Comments
	This algorithm is also hierarchical as above.
1. 2009 updated "P2009ProvType from Tracking Database" = type, unless = other/unknown/missing, then	This allows any new type identified during the prevalent year to be the first chosen type. This aligns it with the type used in prevalence 2001. *Note: The 2001 algorithm has not been identified at the COC as yet to verify how it was done.*
2. Core form Q5a/6, unless type=other or missing; if missing then skip to step 4, if type = other then	Placing this step next allows updated type from the 'core core' form to be used, instead of the MRAF original type. Original 'core core' form (9/24/03), used to update core information from MRAF in SEARCH 1. Starting with SEARCH 2, the extended core form had a Q. 6, identical to Q. 5a.
3. Check 'other_specify' for data=type; if other_specify field code is = to "unknown", then	This allows the provider to indicate what the 'other' type may have been, and often includes information on secondary types of DM. This field requires coding of data prior to use. Records have been coded using an ADA compliant set of terms. Note: when type = 'other' in #2, but other_specify field is blank this is coded as "unknown"
4. MRAF = type, unless 'other' or missing; if missing then skip to step 6, if type = 'other' then	Medical record abstraction form (MRAF 12/1/03) Q. 23, used in SEARCH 1, 2002-2005 (with 3 cases having data:1 in 2006, 2 in 2009)
5. Check 'other_specify' for data=type; if other_specify field code is = "unknown", then	New step, as above (#2) from different version of form, with same question. Note: when type = 'other' in #3, but other_specify field is blank this is coded as "unknown"
6. PresumeDiabType from TDB = type, unless "other", "unknown" or missing, then	Recommendation is to continue to use this field from the TDB for 2001-2009 cases, since over time the MOP has been somewhat inconsistent about its use, and sites have used it, when not updating other fields. If it were not used, it would require a lot if late data queries and edits, which would simply come from this field.
7. TDB p2009provType = "other", or TDB presumeDiabType = "other" response; if type is still "unknown" or missing, then	If all previous steps do not produce a DM type other than "other" (excluding missing/unknown) from the TDB then use the "other" response
8. TDB (p2009provType), CORE, MRAF, or TDB (presumeDiabType) "unknown" response; if type is still missing, then	Use "unknown" response from these variables if no other DM type information is available

9. Undefined	Final default from all steps above. This indicates having missing DM type information from all sources above. Send query to sites if this is the case.
Implementation notes:	<u>As above</u> for the 2001 prevalent cases and 2002-2009 incident cases – data will be upcoded. This process will simplify the prevalent 2009 algorithm as follows: 1. Use TDB 2009 DM type variable (P2009ProvType), unless type = other/unknown/missing then… 2. Use Core form Q5a/6*, unless type = unknown/missing then… 3. Use MRAF Q23*, unless type = unknown/missing then… 4. Use TDB presumediabtype, unless type = other/unknown/missing then… 5. Use "other" from TDB 2009 DM type variable, if still missing/unknown then use "other" from TDB presumediabtype, if still missing/unknown then… 6. Use unknown response from TDB (2009 var), CORE, MRAF, or TDB (reg. var) if still missing then.. 7. Undefined DM type (query sites if this is the case) *using "up-coded" variables

PROPOSED algorithm for PROVIDER TYPE <u>For 2010-2015 incident cases</u>	Comments
	This algorithm is also hierarchical as above, but removes use of the TDB
1. Extended core Q. 7 (6 months) = type, unless 'other' or missing; if missing then skip to step 3, if type = 'other', , then	Starting with SEARCH 3, the extended core form (11/07/11) uses the same question about type as in prior years, but also asks: 'Q. 7: …at diagnosis' and Q.7: …at 6 months after diagnosis.' The recommendation is to use Q. 7…at 6 months first, since this aligns with SEARCH 1 instructions. SEARCH 2 did not specify the time of data capture.
2. Check Q. 7 'other_specify' for data = type; if other_specify field code is = to "unknown" , then	The 'other_specify' fields require that sites code them going forward using a standard coding manual (see below). This will also require training and MOP revisions. Query sites if type = "other" and specify field or code is left blank. On the rare occasion that the specify field remains blank this will be coded to "unknown"

3. Extended core Q. 7 (at dx) = type, unless 'other' or missing; if missing then skip to step 5, if type = 'other', then	Use of Q. 7 (at dx) after checking Q. 7 (at 6 months) should allow provider type to be identified on a high proportion of cases. No analysis of the frequency of the various questions completed has been done.
4. Check Q. 7 (at dx) 'other_specify' for data = type; if other_specify field code is = "unknown" , then	Query sites if type = "other" and specify field or code is left blank. On the rare occasion that the specify field remains blank this will be coded to "unknown"
5. CORE Q7 (at 6 months) or CORE Q7 (at dx) "unknown" response; if type is still missing, then	If all previous steps do not indicate a DM type other than "unknown" then use "unknown" as the DM type if indicated as such from one of these sources
6. Undefined	Final default from all steps above. This indicates having no DM type information from any source. Send query to sites if this is the case.
Implementation notes:	Dick will review 'other, specify' fields in the CORE form for those entered through 12/31/2012 and send codes to Ken. Ken will upload these codes and create a separate "view" for analyses which incorporates the "up-coded" values from the 'other, specify' field codes to give us a final DM type from the CORE form. NOTE: as of 1/1/2013 CORE forms will be available to the sites with the fields for the 'other, specify' codes. Sites will be trained on how to code these so Dick no longer has to review the fields and code them himself and send to Ken to upload. The codes will be data entered directly to the CoC within the CORE form itself. The behind-the-scenes "up-coding" will still take place to give us a final CORE DM type which incorporates the 'other, specify' field code. Again, the hierarchy uses the final, "up-coded" variable, which is simplified from above to: 1. Use Extended core Q7 (at 6 months)*, unless type = unknown/missing then… 2. Use Extended core Q7 (at dx)*, unless type = unknown/missing then… 3. Use "unknown" from Extended core Q7 (at 6 months), if still missing then use "unknown" from Extended core Q7 (at dx), if still missing then.. 4. Undefined DM type (query sites if this is the case) *using "up-coded" variables NOTE: if the "other" DM type is checked for Q7 (at dx) or Q7 (at 6 months) and the 'other, specify' field is left blank or the code is left blank – this will generate a query in the "site validation queries" web report and in the dataset freeze web report. If on the rare occasion the DM type variable = 'other' and the specify field/code remains blank after query this

| | will be up-coded as "unknown". |
| | NOTE: While these changes will apply to cohorts starting in 2010 forward, substantial amounts of information on 2010-2012 cases has already been data entered. Some of it has been entered into the TDB, so to reduce workload on the sites, the TDB will still be used until a date in early 2013 to be determined. At that time, the TDB fields will no longer be used to update data. In addition, the Search 3 extended core form was not available until early 2011, so many 2010-2011 cases used the Search 2 extended core form. |

Review of algorithms for sex, DOB, Date of Diagnosis, Race/ethnicity

NOTE 1: The CoC does not distinguish between "old" and "future" algorithms/hierarchies due to changes in sources (i.e. – in the future the TDB will not include race, DOB, date of dx, etc.). ALL SEARCH data gets sent through the same hierarchies together and for the "future" participants there won't be any data in a particular old source so it will continue to fall through the hierarchy as if it wasn't there. But we need those sources there for the "old" participants that do have data in those sources.

NOTE 2: While these changes will apply to cohorts starting in 2010 forward, substantial information on 2010-2012 cases has already been data entered. Some of it has been entered into the TDB, so to reduce workload on the sites, the TDB will still be used until a date in early 2013 to be determined. At that time, the TDB fields will no longer be used to update data.

The following hierarchies were reviewed, are consistent with prior decisions from prior technical reports, and were approved:

RACE:
1. IPS
2. MRAF (only collected in S1)
3. CORE/Extended CORE
4. TDB (See NOTE 2 above)

Query the sites when all sources have missing race information (blank in all sources).
This agrees with the order of variables in the prior technical report.

DATE OF BIRTH:
1. IPS
2. Extended CORE (available on S3 Ext. Core form only)
3. TDB (data on DOB from TDB will not be available in the future) (See NOTE 2 above)

Query the sites when:
1. Missing DOB information across all sources

2. Missing year in IPS, CORE (only check missing year in TDB if CORE DOB is missing)

3. If we have year information but are missing month information on IPS or CORE (if TDB is only source of information and is missing month then query that too – doing this to relieve sites of too many queries)

4. Discrepancy between sources:

a. If year is different

b. If months have a difference of >= 6 months

• If discrepancy still exists after query then use hierarchy.

• Also note that if missing MONTH information (after query) we set MONTH to January. Starting in S3 we did not obtain DAY information, if DAY information is missing we set DAY to the first of the month (it will always be missing for S3 ppts). Setting it to the first of the month and/or year results in no calculated durations of diabetes being negative. It was reviewed and approved as an approach by ROC.

DATE OF DIAGNOSIS:

1. MRAF/Ext. CORE (information in MRAF for 01-05 ppts, Ext. Core for 06 and beyond ppts)

2. TDB (data on date of DX from TDB will not be available in the future) (see NOTE 2 above)

3. IPS

4. Casestat year (This is a TDB variable which indicates the year of diagnosis)

Query sites when:

1. Missing Date of DX information across all sources (#1-#3)

2. Missing year:

    a. All years – query if missing year on MRAF/CORE (only query missing TDB year if missing MRAF/CORE DX Date and not a prev01 or prev09 case)

    b. Inc02-09 – query missing year for IPS only when MRAF/CORE and TDB are missing DX date (not sending query for missing year on IPS for prev01 & prev09 cases to reduce burden on sites)

    c. Inc 10 cases and beyond – check missing year for IPS (always)

3. If we have year information but are missing month information:

    a. Inc 02-Inc 09 cases – if we are missing month on CORE or MRAF (only check TDB for missing month if CORE & MRAF are missing DX date and only check IPS for missing month if it is the only source of information – doing it this way to relieve sites of too many queries); Not checking prev01 or prev09 missing month to relieve sites of too many queries.

    b. Inc 10 cases and beyond – if we are missing month on CORE or IPS (only checking for missing month in TDB if we are missing CORE DX date)

4. Discrepancy between sources:

    a. If year is different

    b. If months have a difference of >= 6 months (not checking month difference on prev01 cases to relieve sites of too many queries)

• If discrepancy still exists between sources after query then use hierarchy.

• We also query the final date of dx year (after hierarchy) against the casestat year.

- #4 in hierarchy is only used when missing date of DX information in all other sources (#1-#3) and then date of DX is set to Jan 1, 20xx per casestat value.
- Also note that if missing MONTH information (after query) we set MONTH to January. Starting in S3 we did not obtain DAY information, if DAY information is missing we set DAY to the first of the month (it will always be missing for S3 ppts).

GENDER:
1. IPS
2. CORE/Ext. CORE
3. TDB 3.   TDB (data on gender from TDB will not be available in the future) (see NOTE 2 above)

Query sites when:
1. Missing gender from all sources
2. Discrepancy between sources

- If discrepancy still exists between sources after query then use hierarchy

The CoC will be responsible for training sites to code the "other_specify" fields from extended core, starting January 1, 2013. They will also implement the query reports noted above.

Table 2 provides codes to be used for the "other_specify" field, to be used for both historical data coding, and prospective coding. This needs to be incorporated into the MOP and sites need to be trained on its use.
Note: if additional diagnoses become available, these should be referred to the CoC, who will regularly send them to ROC for changes to the codes. No additional codes should be added by sties, or by the CoC without ROC review.

Table 2. Codes for conditions* listed by providers in the "other_specify" field of various forms

Category	Things to code in category
Other specific types	
3. Genetic defects of beta-cell function	• 300 MODY, type not specified, or specific MODY types as below: • 301 MODY 1, HNF4a • 302 MODY 2, GCK, glucokinase • 303 MODY 3, HNF1a • 304 MODY 4 • 305 MODY 5 • 306 MODY 6 • 307 MODY 7 • 308 MODY 8 • 309 MODY 9 • 310 MODY 10 • 311 MODY 11 • 312 MODY 12 • 320 mitochondrial DNA • 399 other, type not specified
4. Genetic defects in insulin action	• 401 Leprechaunism • 402 Lipoatrophic diabetes • 403 Rabson-Mendenhall syndrome • 404 Type A insulin resistance • 499 other, type not specified
5. Exocrine pancreatic	• 501 cancer, neoplasia **NOTE: if said to be secondary to cancer <u>medicine</u> – code as #7, not here** • 502 cystic fibrosis • 503 fibrocalculus • 504 hemochromatosis • 505 pancreatitis • 506 trauma/pancreatectomy • 599 other, type not specified
6. Endocrinopathies	• 601 acromegaly • 602 alderosteroma • 603 Cushing's syndrome • 604 glucagonoma • 605 hyperthyroidism • 606 somatostatinoma • 699 other, type not specified

7. Drug/chemical induced	• 701 beta-adrenergic agonists (**see list**) • 702 diazoxide • 703 dilantin (phenytoin-seizure medicine) • 704 gamma-interferon • 705 glucocorticoids/steroids (**see list**) • 706 thyroid hormone • 707 thiazides (**see list**) • 708 pentamindine • 709 nicotinic acid • 710 Vacor • 711 Antipsychotics and atypical antipsychotics (**see list**) • 799 other, type not specified • **NOTE: if said to be secondary to cancer medicine – code here, not #5**
8. Infections	• 801 congenital rubella • 802 cytomegalovirus • 899 other infections, type not specified
9. Other known types	• 901 "stiff-man" syndrome • 902 anti-insulin receptor antibodies • 999 other
10. Genetic syndromes	• 1001 Down • 1002 Friedreich Ataxia • 1003 Huntington chorea • 1004 Klinefelter • 1005 Laurence-Mood-Biedel syndrome • 1006 myotonic dystrophy • 1007 Turner • 1008 Wolfram • 1009 porphyria • 1010 Prader-Willi syndrome • 1011 other named syndromes • 1012 Permanent neonatal due to Kir 6.2 mutation • 1013 Permanent neonatal due to SUR mutation • 1014 Permanent neonatal due to INS (insulin gene mutations) • 1088 Permanent neonatal type not specified **NOTE: If transient neonatal only: not eligible, unregister** • 1098 other genetic syndrome, type not specified • 1099 secondary, type not specified
11. Gestational diabetes (not eligible)	• 1101 GDM, gestational DM

12. Type unknown	• **1299 FOR ALL**
	• unknown
	• comments about being uncertain of type
	• hybrid
	• Diabetes Mellitus, type not specified
	• diabetes mellitus, type not specified
	• DM, Type 1 vs. Type 1B and 2
	• type 1 ½, or 1.5;
	• still determining
	• Insulin dependent diabetes mellitus and Type II (i.e. both types mentioned)
	• new onset diabetes, type not specified
	• Impaired glucose tolerance
	  NOTE: if glucose intolerance <u>only</u>: not eligible, unregister
	• Insulin resistance
	  NOTE: if insulin resistance <u>only</u>: not eligible, unregister
	• other comments without clear statement of type

Other issues	• If field says: doesn't have DM, or never diagnosed: <u>unregister</u> • If case has notes that are not included in this list: contact CoC for decision about how to query clinical record or which code to use. • CoC refers such cases to ROC for review and decision on regular basis.
*From: American Diabetes Association: Diagnosis and Classification of Diabetes Mellitus. Diab Care 35:S64-S71, 2012	

Based on the categories above, SEARCH use of the term 'secondary' would include the ADA groups 4-10.
Categorize other_specify as above, then group them in analysis as:

Category	Number from table above
Type 1	1
Type 2	2
MODY	3
SECONDARY	4-10
Unknown	12

MODY and secondary can also be collapsed as needed for specific papers.

Listing of names of drugs for codes above
These drug names are to help identify which class of agent is being referred to, if the general class name is not given (e.g. medical record says drug name, but not "beta$_2$-adrenergic agonist")

Beta$_2$-adrenergic agonists (Code 701)
Generic name [followed by common brand names, if specific drug is listed]
Short acting
- Albuterol (salbutamol) [AccuNeb; ProAir HFA; Proventil HFA; Ventolin HFA; VoSpire ER],
- Levalbuterol [Xopenex HFA; Xopenex]
- Metaproterenol [Apo-Orciprenaline; ratio-Orciprenaline; Tanta-Orciprenaline]
- Terbutaline

Long acting
- Salmeterol [Serevent Diskus]
- Formoterol [Foradil Aerolizer; Perforomist]
- Arformoterol [Brovana]

Glucocorticoids/steroids (Code 705)
Generic name [followed by common brand names, if specific drug is listed]
- Betamethasone [Celestone; Celestone Soluspan; Diprolene; Diprolene AF; Luxiq]
- Budesonide [Entocort EC; Pulmicort Flexhaler; Pulmicort Respules]
- Corticotropin [H.P. Acthar]
- Cortisone [generic]
- Dexamethasone [Baycadron; Decadron, Dexamethasone Intensol; DexPak 10 Day TaperPak; DexPak 13 Day TaperPak; DexPak 6 Day TaperPak]
- Fludrocortisone [Florinef]
- Hydrocortisone [A-Hydrocort; Cortef; Solu-CORTEF]
- Methylprednisolone [A-Methapred; Depo-Medrol; Medrol; Medrol Dosepak; Solu-MEDROL]
- Prednisolone [Flo-Pred; Millipred; Millipred DP; Orapred ODT; Orapred; Pediapred; Veripred 20]
- Prednisone [PredniSONE Intensol]
- Triamcinolone [Aristospan; Kenalog-10; Kenalog-40]

Thiazides (Code 707)
The common generic names are:
- Hydrochlorothiazide
- Bendroflumethiazide
- Chlorothiazide
- Methyclothiazide

By brand name- many combination drugs have a thiazide as one of several ingredients. This list is to help if a specific drug is listed).

- Accuretic Tablets: (hydrochlorothiazide, quinapril hydrochloride)
- Aldactazide Tablets: (hydrochlorothiazide, spironolactone)
- Amiloride Hydrochloride and Hydrochlorothiazide Tablets: (amiloride hydrochloride, hydrochlorothiazide)
- Amturnide Tablets: (aliskiren, amlodipine, hydrochlorothiazide)

- Atacand HCT 16-12.5 Tablets: (candesartan cilexetil, hydrochlorothiazide)
- Atacand HCT 32-12.5 Tablets: (candesartan cilexetil, hydrochlorothiazide)
- Avalide Tablets: (hydrochlorothiazide, irbesartan)
- Benicar HCT Tablets: (hydrochlorothiazide, olmesartan medoxomil)
- Capozide 25/15 Tablets: (captopril, hydrochlorothiazide)
- Capozide 25/25 Tablets: (captopril, hydrochlorothiazide)
- Capozide 50/15 Tablets: (captopril, hydrochlorothiazide)
- Capozide 50/25 Tablets: (captopril, hydrochlorothiazide)
- Chlorothiazide Tablets, USP: (chlorothiazide)
- Corzide Tablets: (bendroflumethiazide, nadolol)
- Diovan HCT Tablets: (hydrochlorothiazide, valsartan)
- Diuril Oral Suspension: (chlorothiazide)
- Dyazide Capsules: (hydrochlorothiazide, triamterene)
- Enalapril Maleate and Hydrochlorothiazide Tablets, USP: (enalapril maleate, hydrochlorothiazide)
- Exforge HCT Tablets: (amlodipine, hydrochlorothiazide, valsartan)
- Fosinopril Sodium and Hydrochlorothiazide Tablets, USP: (fosinopril sodium, hydrochlorothiazide)
- Hydrochlorothiazide Capsules: (hydrochlorothiazide)
- Hydrochlorothiazide Tablets, USP: (hydrochlorothiazide)
- Hyzaar 100-12.5 Tablets: (hydrochlorothiazide, losartan potassium)
- Hyzaar 100-25 Tablets: (hydrochlorothiazide, losartan potassium)
- Hyzaar 50-12.5 Tablets: (hydrochlorothiazide, losartan potassium)
- Intravenous Sodium Diuril: (chlorothiazide sodium)
- Lopressor HCT 100/25 Tablets: (hydrochlorothiazide, metoprolol tartrate)
- Lopressor HCT 50/25 Tablets: (hydrochlorothiazide, metoprolol tartrate)
- Lotensin HCT Tablets: (benazepril hydrochloride, hydrochlorothiazide)
- Maxzide Tablets: (hydrochlorothiazide, triamterene)
- Maxzide-25 mg Tablets: (hydrochlorothiazide, triamterene)
- Methyclothiazide Tablets, USP: (methyclothiazide)
- Methyldopa and Hydrochlorothiazide Tablets, USP: (hydrochlorothiazide, methyldopa)
- Metoprolol Tartrate and Hydrochlorothiazide Tablets: (hydrochlorothiazide, metoprolol tartrate)
- Micardis HCT Tablets: (hydrochlorothiazide, telmisartan)
- Microzide Capsules: (hydrochlorothiazide)
- Prinzide Tablets: (hydrochlorothiazide, lisinopril)
- Propranolol Hydrochloride and Hydrochlorothiazide Tablets: (hydrochlorothiazide, propranolol hydrochloride)
- Tekturna HCT Tablets: (aliskiren, hydrochlorothiazide)
- Teveten HCT Tablets: (eprosartan mesylate, hydrochlorothiazide)
- Tribenzor Tablets: (amlodipine, hydrochlorothiazide, olmesartan medoxomil)
- Uniretic Tablets: (hydrochlorothiazide, moexipril hydrochloride)
- Vaseretic Tablets: (enalapril maleate, hydrochlorothiazide)
- Zestoretic 10-12.5 Tablets: (hydrochlorothiazide, lisinopril)

- Zestoretic 20-12.5 Tablets: (hydrochlorothiazide, lisinopril)
- Zestoretic 20-25 Tablets: (hydrochlorothiazide, lisinopril)
- Ziac Tablets: (bisoprolol fumarate, hydrochlorothiazide)

Antipsychotics and atypical antipsychotics (Code 711). Generic name is followed by brand name, then brand name sort

Sorted by generic name

Generic name	Brand name
Amisulpride	Solian
Aripiprazole	Abilify
Asenapine	Saphris
Chlorpromazine	Thorazine
Chlorpromazine	Largactil
Chlorprothixene	Cloxan
Chlorprothixene	Taractan
Chlorprothixene	Truxal
Clopenthixol	Sordinol
Clozapine	Clozaril
Cyamemazine	Tercian
Droperidol	Droleptan
Droperidol	Inapsine
Flupenthixol	Depixol
Flupenthixol	Fluanxol
Fluphenazine	Prolixin
Haloperidol	Haldol
Haloperidol	Serenace
Iloperidone	Fanapt
Levomepromazine	Nozinan
Lurasidone	Latuda
Mesoridazine	Serentil
Olanzapine	Zyprexa
Paliperidone	Invega
Periciazine	Periciazine
Perphenazine	Trilafon
Pimozide	Orap
Prochlorperazine	Compazine
Promazine	Promazine
Promethazine	Phenergan
Quetiapine	Seroquel
Risperidone	Risperdal

- Sertindole
- Thioridazine
- Thiothixene
- Trifluoperazine
- Triflupromazine
- Ziprasidone
- Zotepine
- Zotepine
- Zotepine
- Zotepine
- Zuclopenthixol
- Zuclopenthixol
- Zuclopenthixol

- Serdolect
- Mellaril
- Navane
- Stelazine
- Vesprin
- Geodon
- Nipolept
- Losizopilon
- Lodopin
- Setous
- Cisordinol
- Clopixol
- Acuphase

Sorted by brand name

Generic name	Brand name
Aripiprazole	Abilify
Zuclopenthixol	Acuphase
Zuclopenthixol	Cisordinol
Zuclopenthixol	Clopixol
Chlorprothixene	Cloxan
Clozapine	Clozaril
Prochlorperazine	Compazine
Flupenthixol	Depixol
Droperidol	Droleptan
Iloperidone	Fanapt
Flupenthixol	Fluanxol
Ziprasidone	Geodon
Haloperidol	Haldol
Droperidol	Inapsine
Paliperidone	Invega
Chlorpromazine	Largactil
Lurasidone	Latuda
Zotepine	Lodopin
Zotepine	Losizopilon
Thioridazine	Mellaril
Thiothixene	Navane
Zotepine	Nipolept
Levomepromazine	Nozinan
Pimozide	Orap
Periciazine	Periciazine
Promethazine	Phenergan

- Fluphenazine
- Promazine
- Risperidone
- Asenapine
- Sertindole
- Haloperidol
- Mesoridazine
- Quetiapine
- Zotepine
- Amisulpride
- Clopenthixol
- Trifluoperazine
- Chlorprothixene
- Cyamemazine
- Chlorpromazine
- Perphenazine
- Chlorprothixene
- Triflupromazine
- Olanzapine

- Prolixin
- Promazine
- Risperdal
- Saphris
- Serdolect
- Serenace
- Serentil
- Seroquel
- Setous
- Solian
- Sordinol
- Stelazine
- Taractan
- Tercian
- Thorazine
- Trilafon
- Truxal
- Vesprin
- Zyprexa