

Pregnancy sliding window input and output requirements

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Input requirements

The algorithm only needs a subset of a typical research database. This subset must start in time at least 1 year (preferably longer) before the start of the time period of interest. This is to ensure that all codes that imply the start or the presence of a pregnancy that may continue into the time period of interest will be included.

All women should be included with ID and date of birth (or some proxy such as year of birth). This is to ensure that cohorts can be followed either retrospectively or prospectively over time.

All instances of every code included in the super set of all five categories defined above must be included. The code + term code + text + date are required and of course associated patient ID

Minimum data input requirements table

Component	Note
Patient ID	Unique ID (can be pseudonymised) for every female included at any time in source database
Patient date of birth (or suitable proxy)	All dates of birth as recorded through entire duration of source database. Must enable calculation of age at time of any instance of any coded entry
Coded entries: code	Code (plus term code where appropriate) for every recorded instance in entire time period covered by source database of every code in pregnancy sliding window superset
Coded entries: date	Clinically relevant date for every recorded instance

Output requirements

The outputs required can be considered as three tables which we will call "Demographics Table", "Pregnancy Episode Table" and "Pregnancy Episode Codes Table"

Demographics Table

Component	Note
Patient ID	
Patient age at start of search period	To enable selection by age at any date or period of time of interest to a researcher
Flag to indicate whether included in pregnancy episode table	Binary flag set to "TRUE" if patient appears in pregnancy table with actual pregnancy. Otherwise set to "FALSE"

This table is required so that researchers can relate the population captured in the Pregnancy Episode Table to the whole population of women included in the input table. For example, some researchers will want to identify all women who are not pregnant during a period of interest – rather than be limited to identifying which of the women who have ever been pregnant at some time, are not pregnant during the period of interest.

Pregnancy Episode Table

Component	Note
Patient ID	
Pregnancy episode ID	Simply needs to be ordinal. With Patient ID can form composite key
Patient age	At pregnancy start date
Start date	Each pregnancy episode will have a single start date (cannot be in the future)
Start date type	Signifying whether calculated from start-time code or from pregnancy end code
Start date Code	The code from which calculated
End date	Each pregnancy episode will have a single end date (which may be a future date)
End date type	Signifying whether calculated from pregnancy end code or from start-time code
End date Code	The code from which calculated
Outcome type	Null or Delivered or Failed**

** Set to Null initially but updated to “Delivered” or “Failed” defined either by category of explicit end date or inferred as ‘Delivered’ in the case where only start code(s) have been found and where end date and end of search period have been passed. NB this would remain as Null where end date is in the future.

This table will provide all of the information required by users of the PSW and some information that will help in refining the methodology.

Pregnancy Episode Codes Table

Component	Note
PatientID	
Pregnancy Episode ID	Composite key with PatientID
CodeID	Optional
Code	
Date of code	

This table should include all of the codes in the PSW superset associated with each specific pregnancy episode – including codes that were used to calculate start and end date. Ideally this should include all associated codes even if these fall just outside of period defined by pregnancy

episode start and end dates (e.g. all codes found during search period) . Its primary use will be to support work to refine the methodology.