

Appendix 1

Calculations and imputations of dates

The EURO CARE-5 protocol includes as optional the *day* of diagnosis and of follow up closure. Some registries were not able to provide such information. For these registries the days in dates were imputed in order to have the same data structure for all the registries.

The following rules were used for days imputations:

1. day of diagnosis and day of death were set equal to 15. For cases censored alive the follow up closure day was set equal to 31 if the corresponding month was December (the wide majority of cases), or 15 otherwise.
2. day of birth was always set at 15.

When the registries provided in addition to month and year also *age at diagnosis and disease duration in exact days*, the full dates of diagnosis and end of follow-up were imputed at random with the constraint of satisfying the given time interval and the months in which diagnosis and death/censoring occurred.

When *month* information was missing in the date of *birth* or in the date of *diagnosis*, the month was imputed according to the following algorithm:

1. year of birth < year of diagnosis → month of birth=7
2. year of birth = year of diagnosis → month of birth=month of diagnosis/2
3. year of diagnosis < year of follow up → month of diagnosis=7
4. year of diagnosis=year of follow up → month of diagnosis=month of follow up/2

No imputation was done for month of follow up.