Royal College of Physicians | National Lung Cancer Audit

Trust First Seen Algorithm

- Patients in the NLCA analysis are cohorted according to the trust first seen, since this is the best current indicator of the decision-making MDT.
- The COSD field "place first seen" can be used to cohort patients and is used if present and there are no conflicting entries. However, problems arise when this is not competed, or when different providers in a complex pathway record different results.
- In this case, our algorithm aims to allow allocation of all patients by using all the data available to the NCRAS team, prioritising trusts that are non-surgical and no-tertiary.

To understand how a non-surgical trust is given priority, it should be known that the extract of the 2015 data had six trust fields (for each patient) which were used to generate trust first seen for every patient. These were:-

- 2 recordings of COSD provider first seen trust (also referred to as cosdpfs-min & cosdpfd-max)
- 2 recordings of COSD provider first seen cancer specialist trust (also referred to as cosdpfscs-min & cosdpfscs-max)
- Trust where diagnosis was recorded according to National Cancer Registration and Analysis Service (NCRAS)
- Trust where any event was recorded according to CAS

The following steps were taken in the following order to allocate a patient's 'trust first seen':

1. Choose trust first seen = provider first seen trust if cosdpfs min and max are the same
2. If either cosdpfs min or max is empty, choose cosdpfs which is not a surgical specialist centre
3. Choose trust first seen = provider first seen cancer specialist trust if cosdpfscs min and max are the same (and cosdpfs-min and max are both empty or are surgical trusts)
4. If either cosdpfscs min or max is empty, choose cosdpfscs which is not a surgical specialist centre (and cosdpfs-min and max are both empty or are surgical trusts)
5. Choose trust first seen – ncras diagnosis if no other information is available
6. Choose trust first seen = cas event if no other information is available
7. Replace trust first seen = ncras diagnosis if both ncras diagnosis and cas event is available (basically choose ncras diagnosis over cas event)
8. Choose trust first seen = cosdpfs min or max which is the same as ncras diagnosis
9. Choose trust first seen = cosdpfscs min or max which is the same as ncras diagnosis
10. Choose trust first seen = cosdpfs min or max which is the same as cas event
11. Choose trust first seen = cosdpfscs min or max which is the same as cas event
12. Choose trust first seen = ncras diagnosis if ncras diagnosis and cas event are the same
13. Choose trust first seen = cas event if any other information matches cas event
14. If unable to make trust first seen from these variables, then choose NCRAS algorithm for trust first seen.
15. To avoid over-estimation of patient first seen at tertiary care trusts (RBV, REN, RGM, RM2 & RPY), override the new trust variable made by using the algorithm with NCRAS trust first seen made using NCRAS algorithm.