Key messages for radiology re decision to remove nasal bone from the risk algorithm

Assessment of nasal bone (NB) has been an optional part of antenatal screening for Down syndrome and other conditions since screening started in 2011.

From 2011 to 2015 the rate of absent NB in New Zealand was about 0.12 percent (internationally the observed rate is about 1.5 percent). The low rate of absent NB gave a low positive test rate and consequent low detection rate for T21.

In 2015 to 2016 the National Screening Unit (NSU) and the radiology advisers provided education and advice around assessment of NB by echogenicity relative to surrounding skin and gestational age for optimum measurement. A review of the data for the period July to December 2017 showed:

- there were 21,379 scans with NT done in 56 practices
- overall 86 percent of NT scans reported a NB
- three practices did no NB (435 scans)
- overall the rate of absent NB was 1.4 percent (0 to 11 percent)
- 30 practices (8632 scans) had no absent NB.

Although the rate of absent NB is now consistent with international practice this is made up from some practices overcalling and many under calling absent NB. Absent NB is highly predictive of T21 so current performance impacts both screening sensitivity and specificity.

Accordingly the decision was made by the NSU, supported by the DSOC Technical Working Group that from 19 March 2018 NB should no longer be looked for or reported with NT scans. Reported NB will not be included in T21 risk assessment for scans done after this date. Absent NB without other markers is a poor screen for T21 so even if the NB is noted to be absent serendipitously it should not be reported in isolation.

**Back ground evidence:**

