BC WOMEN'S HOSPITAL+ HEALTH CENTRE
An agency of the Provincial Health Services Authority

MEMO

To: BCW sonographers, reporting MDs and MFM fellows

From: Chantal Mayer, Medical lead BCW Ultrasound;

Date: November 10, 2020

Re: **Implications of PSBC Soft marker on 2nd trimester ultrasound algorithm update on BCW US Practice**

What is new?

PSBC just recently posted an updated algorithm regarding management of soft markers detected on 2nd trimester detail ultrasound (also attached).

The algorithm specifically clarifies soft marker assessment in the context of a "negative" or "low risk" NIPT as the soft markers identified have been associated with diagnoses beyond those detected by NIPT and due to the fact that rare cases of "false negative NIPT" for Trisomy 21 have been described in the BC population.

What changes are taking place?

Effective November 16, 2020, the following changes in practice will take place in order to align with PSBC algorithm:

- **Fetal profile** is added as a routine anatomical view. Please note:
  - imaging specifications were circulated as part of Nov-Dec 2020 BCW US Focus of the Month) and attached here.
  - Consistent with all other screening views, "facial profile" will be considered mandatory on the detail scan (patient will be invited to come back if unable to obtain) and part of the regular check list for third trimester scan where an attempt to reassess anatomy is made.
- **Nasal bone** assessment:
  - To be done at the time of detail scan on all patients, *regardless* of NIPT testing
  - Is reported as "present/ normal" or "absent/abnormal"
    - Extended heart views are added when nasal bone is absent
- **Nuchal fold** is measured and reported on all patients at the time of details scan (GA up to 22+6 weeks), *regardless* of NIPT testing.
  - Extended heart views are added to the examination when measurement is >or= to 6mm
- **Extended heart views** will be added to examination for patients referred from outside facilities with either "absent nasal bone" or "increased nuchal fold"

How will this impact workload in ultrasound?

The impact on workload is expected to be small given that a large proportion of exams have a fetal profile documented at the time of detail scan and that in many cases extended heart views are routine obtained.

However, we will be keeping a log of patients require to come back for the only purpose of documenting "profile view" to monitor impact on workload.

What about IVF patients with preimplantation genetic testing (PGT) for aneuploidy?

PGT is also known as pre-implantation genetic screening (PGS) or comprehensive chromosome testing (CCS). With respect to Trisomy 21 screening, the performance of these tests is generally considered to be equivalent to NIPT.

"Soft markers" routinely examined at the time of detail ultrasound that may be associated with genetic conditions other than Trisomy 21 (bowel for echogenicity, nasal bone and nuchal fold) are assessed in all patients, including those with either PGT for aneuploidy *or* NIPT.

Figure 1: PSBC algorithm with BCW US comments: