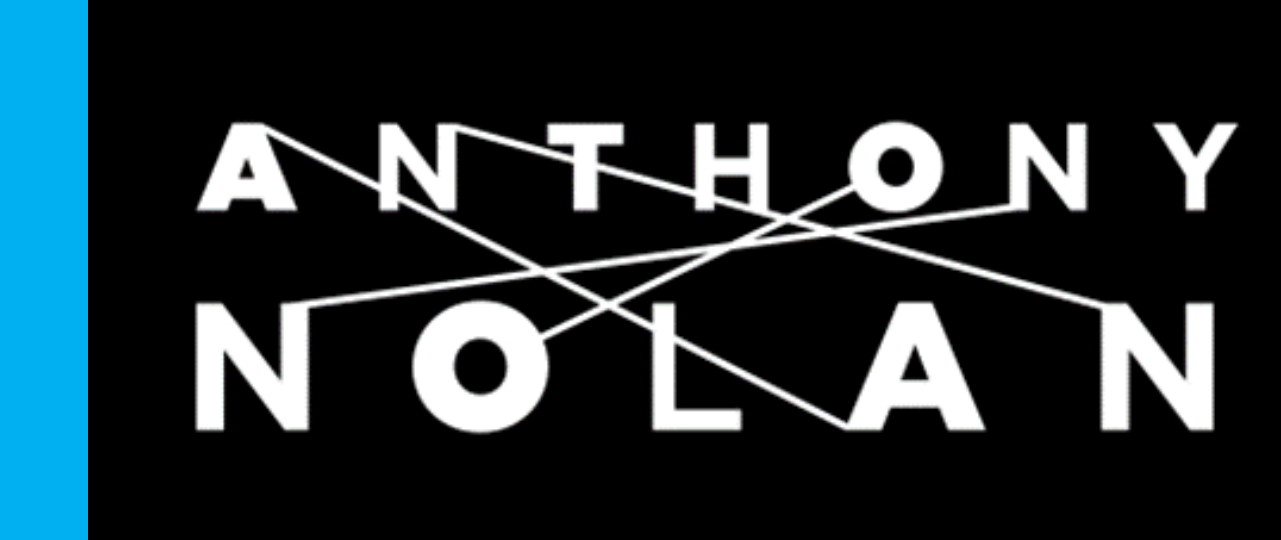


Pregnancy outcomes following bone marrow transplant +/- total body irradiation

Authors: Katherine Birchenall¹ (presenter: kb4554@bristol.ac.uk), Anna David², Melanie Davies², Victoria Grandage², Raoul Reulen³, David Winter³, Julia Lee⁴, Rachel Pearce⁴, Michael Hawkins³, Melanie Griffin¹

Affiliations: 1.University Hospitals Bristol and Weston NHS Foundation Trust; 2.University College London Hospitals NHS Foundation Trust; 3.University of Birmingham; 4.British Society of Blood and Marrow Transplantation and Cellular Therapy/Kings College London



saving the lives
of people with
blood cancer

Objective:

Female childhood cancer survivors have increased risk of preterm birth (PTB), with relatively little known about pregnancy outcomes for women treated with bone marrow transplant (BMT) +/- total body irradiation (TBI), and management is likely variable. Preconception counselling and early referral to high-risk PTB prevention clinics (PTBPC) may improve outcomes.

We are jointly funded by Action Medical Research/Borne to determine:

1. Current care offered to women who conceive following BMT +/- TBI.
2. Incidence of adverse pregnancy outcomes for these women.

We will then work with stakeholders to develop national recommendations. Here we report on our progress.

Design:

- National clinician survey
- UK Obstetric Surveillance Survey (UKOSS)
- Linkage of national databases

Results so far:

1. Between 22/10/2020 and 21/10/2021, we received 47 clinician survey responses:
 - 49% obstetricians and gynaecologists (O&G); 15% haematologists; 11% oncologists, 8% endocrinologists, 17% other.
 - Overall, 43% of responders reviewed women with previous BMT+/-TBI at least every month, 15% at least annually, 15% less than annually, and 27% never.
 - For O&G, these percentages were 13%, 13%, 26%, and 48%, respectively.
 - Of 23 O&G responses, 11 reviewed these women in antenatal clinics, three in preconception clinics, three in late effects clinics, two in reproductive medicine clinics, and one in paediatric and adolescent gynaecology clinics.
 - Most discussed the potential implications for future pregnancy when meeting these girls and women pre-pregnancy.
 - During early pregnancy, the following risks were reported as being discussed: 34% late miscarriage, 44% preterm labour, 31% fetal growth restriction, and 30% risks for health other than cancer.
 - Of 30 responders who meet these women during pregnancy: 24 refer to specialist clinics (21 maternal medicine, 14 PTBPC, and six general antenatal clinic); 26 offer extra investigations (21 maternal echocardiogram, 13 renal and liver function, 13 serial fetal growth scans, seven cervical length measurement, and seven midstream urinalysis); 10 prescribed Aspirin; six had offered cervical cerclage; and four prescribed Progesterone.
2. Datasets have been linked and analysis commenced, to present later this year.
3. The UKOSS will complete 31/12/2022 and we will present these findings in 2023.

Methodology:

1. National survey of clinicians
2. Dataset linkage between British Childhood Cancer/Teenage and Young Adult Cancer Survivor Study cohorts and the British Society of Blood and Marrow Transplantation registry.
3. Prospective UKOSS study.

Conclusions:

There is clear evidence of good care, with fertility and pregnancy discussed early. However, there is variation in management offered during pregnancy. Given previous observations that pregnancy outcomes improve when managed in Preterm Birth Prevention Clinics, clearer guidance is needed.

Please continue to report all women who have a pregnancy following BMT to UKOSS:

<https://www.npeu.ox.ac.uk/ukoss/current-surveillance/bmt>