## Development of Breast Cancer Services in the West Bank of the Occupied Palestinian Territories (oPt)

Breast cancer is the most common cancer among Palestinian women, with five-year survival rates as low as 40%. This makes breast cancer the highest cause of cancer deaths among Palestinian women. Challenges posed by restrictions on the right to movement, shortages of essential medicines, and the shortcomings of the health system in the occupied Palestinian territory (oPt) constitute obstacles to effective treatment and care. In conjunction with Medical Aid for Palestinians (MAP) and the oPt Ministry of Health (MOH), a series of multidisciplinary team visits have taken place from the UK to Gaza and the West Bank, including radiologists, surgeons, breast care nurses and oncologists. UK based breast surgeons have been involved in these, including Ahmed Mustafa, Yazan Masannat, Saed Ramzi and myself to the West Bank, and Suzanne Elgammal, Philippa Whitford and Glyn Neades to Gaza.

A three year project was set up in 2017 including: regular multi-disciplinary specialist team visits to hospitals in the north of the West Bank; video-conferencing for team meeting support; development of national diagnostic and treatment pathways; training in relevant surgical and radiological techniques; hosting UK based observerships for Palestinian staff.



Photo: Ehab Yousef visiting surgeon from Nablus, West Bank with the Dundee Breast Care Team

The West Bank MDT visits have been centred in the north in the Nablus region at MOH hospitals. Breast cancer services are fragmented for a number of reasons, providing a significant challenge to those endeavouring to provide a service for patients with breast symptoms. Healthcare is provided across a range of options including MOH hospitals, non-governmental organisations (NGO) and private facilities. Most of these hospitals do not have the facilities on site to complete a full triple assessment, so the patients often have been to multiple facilities for diagnostic purposes. There were no guidelines used for diagnostic or treatment pathways, and as such there was inappropriate use of resource such as patients with breast cysts having staging CTs but no breast ultrasound. There were no dedicated breast specialists, with general radiologists and surgeons performing the diagnostics and surgery with knowledge gleaned from their general training, and due to lack of funding and restrictions on travel, little opportunity to update skills and knowledge. There was no culture of MDT working in the approach to care of breast cancer patients. Furthermore, there were no dedicated specialist nurses, and as such patient information and essentials such as holistic support, prostheses and exercise advice were lacking.



Photo: Theatres Rafedia Hospital, Nablus

The focus of our visits has been to emphasise the benefits of MDT working, development of diagnostic and treatment pathways, and practical demonstrations of clinical and surgical techniques. It was common practice for patients to undergo mastectomy and axillary clearance, and while breast conservation was practised, it is not guaranteed that patients will be able to receive radiotherapy due to permit requirements for Palestinian patients to travel to East Jerusalem, which necessitates travelling through areas under Israeli government control. World Health Organisation figures show more than 40% of all patient applications for travel permits are not granted. There is also no access to radioisotope due to restrictions, and to avoid unnecessary axillary clearances, we have introduced the use of axillary ultrasound assessment of nodes, and the use of blue dye directed axillary node samples where the nodes are radiologically normal.

To develop clinical relationships with the local teams we have maintained electronic communication to discuss clinical cases and have teleconference MDT meetings with clinicians from the involved hospitals.

National guidelines for diagnostic and treatment pathways are being developed in conjunction with the MOH, and all healthcare providers in the oPt will be expected to utilise these. There is also a national collection of cancer data that will be audited by MOH, and it is hoped that these data can be used to inform decisions regarding setting clinical standards. These data could be used to determine

which patients require CT staging, as currently all patients with breast cancer will have this performed, and also to inform the follow-up imaging, which currently includes 6 monthly ultrasound as well as mammography.



Photo: Visiting surgeons Jane Macaskill and Ahmed Mustafa with Rafedia Hospital theatre team

We were also delighted that MAP were able to fund hosting 2 observers to the UK in spring 2019, one radiologist Dr Ayman Kalbouneh from the West Bank to breast radiology departments in Glasgow and Manchester, and one surgeon Dr Ehab Yousef from the West Bank to visit Dundee and Aberdeen breast units. Dr Yousef was also able to attend with the help of the organising committee and MAP the ABS Advanced Skills in Breast Disease Management course on the 27-29 March 2019 in Cambridge and found this an invaluable update on clinical management of breast disease.

The project is expected to continue for the next 12 months with further visits, and we are honoured and humbled to have been able to work alongside our Palestinian colleagues who have been incredibly welcoming and receptive to our teams.

Jane Macaskill Ninewells Hospital, Dundee