5th Symposium on Primary Breast Cancer in Older Women

Theme: Optimising treatment in older breast cancer patients: this is precision medicine too!

East Midlands Conference Centre, Nottingham, UK
1st March 2019

In association with:

Accredited by the Royal College of Surgeons of England for up to 6 CPD points

Information to delegates:		
Wifi:	Is available free of charge in the East Midlands Conference Centre	
Programme, speakers' profiles and abstracts	www.futuremedicine.com/doi/10.2217/fon-2019-0070	
Slides:	Copies of the slides presented at the Symposium will be available on the Symposia webpage below from 4th March 2019	
Useful links:	Symposia webpage	www.nottingham.ac.uk/medicine/breastmeetings
	University of Nottingham	www.nottingham.ac.uk
	International Society of Geriatric Oncology (SIOG)	www.siog.org
Evaluation forms: Please hand in your completed 'Evaluation form' to the Registration Desk at the end of the Symposium in exchange for your 'Certificate of Attendance'.		

Welcome message

We would like to offer you a very warm welcome to the '5th Symposium on Primary Breast Cancer in Older Women'. Since 2010 (which was the first event), we are pleased to continue to host the Symposium both by the University of Nottingham and, since 2013, in association with the International Society of Geriatric Oncology (SIOG).

This year we are pleased to introduce international representation to our organising committee with Dr Etienne Brain and Dr Siri Rostoft providing additional insight into their respective fields of oncology and geriatrics.

Building on the success of the 4th Symposium 'Putting personalising care into practice', we have focused on providing optimal care for an individual patient. As a result, we have given this year's Symposium the theme of 'Optimising treatment in older breast cancer patients: this is precision medicine too!'

Following positive feedback from the 4th Symposium we include both oral and poster presentations from submitted abstracts, which were reviewed and selected by the faculty and Editorial team of Future Oncology, to the programme. We are pleased to announce that this year, for the first time, we will have a prize for the best oral presentation.

Chair, Professor Kwok-Leung Cheung

5th Symposium on Primary Breast Cancer in Older Women

THEME: Optimising treatment in older breast cancer patients: this is precision medicine too!

HOST: University of Nottingham, UK

CHAIR: Professor Kwok-Leung Cheung

DATE: Friday 1st March 2019

VENUE: East Midlands Conference Centre (EMCC), Nottingham, UK

Background:

- This will be the 5th Symposium, the first one being held in 2010. This event is the only one of this kind in the UK, dedicated to the management of primary breast cancer in older women. Since 2013 the meetings have been organised in association with the auspices of SIOG.
- Kwok-Leung Cheung, the Symposium Chair, is the UK Representative of SIOG. Members of the organising committee and key speakers include the past President of SIOG, Etienne Brain.
- Details of past symposia can be found at: www.nottingham.ac.uk/medicine/breastmeetings

Objectives:

With an overall aim to personalise the management of primary breast cancer in older women, this event has the following specific objectives:

- To develop an in-depth understanding around the biology and treatment options
- To explore the specific physical and psychosocial needs and consideration including patients' perspective
- To gain insight into the development of a holistic and multidisciplinary management approach and the importance of supporting research

Target participants:

- Members of multidisciplinary clinical and research teams with an interest in optimising the management of primary breast cancer in older women – breast surgeons, oncologists, geriatricians, pathologists and clinical nurse specialists, as well as patient representatives.
- The main target audience will be within the UK and international delegates are welcome.

Formats:

As before, this will be in the form of presentations (lectures from UK and international faculty) with a number of interactive discussions and sharing of patients' experience. We continue to include oral and poster presentations, with abstracts to be published as a Supplement to Future Oncology (impact factor 2.369 [2017] and citable in PubMed/MEDLINE).

Auspices and CPD accreditation:

SIOG auspices and accreditation by the Royal College of Surgeons of England (which implies reciprocal recognition by other medical Royal Colleges) have been approved.

Organising committee:

Professor Kwok-Leung Cheung (Chair)

Dr Etienne Brain

Dr Siri Rostoft

Miss Ruth Parks

Mrs Lesley Randall

PROGRAMME:**Arrival and registration***Welcome and introduction (09:45 – 10:00)*

	Presentation	Speaker	Affiliations
09:45–10:00	Welcome and introduction	Kwok-Leung Cheung	Professor of Breast Surgery and Medical Education, University of Nottingham Consultant Breast Surgeon, Royal Derby Hospital UK National Representative, SIOG Symposium Chair

Session 1 Recent developments (10:00 – 11:15) Chair: Siri Rostoft

	Presentation	Speaker	Affiliations
10:00–10:20	Global perspectives – What is new?	Etienne Brain	Medical Oncologist, Institute Curie, Paris, France Past President, SIOG
10:20–10:40	National initiatives – Expert Reference Group for Cancer in Older People and National Audit of Breast Cancer in Older People (NABCOP)	Richard Simcock	Consultant Clinical Oncologist, Sussex Cancer Centre Chair, Expert Reference Group for Cancer in Older People, Macmillan Cancer Support
10:40–11:00	Updates on the 'Bridging The Age Gap' (BTAG) Study	Lynda Wyld	Professor of Surgical Oncology, University of Sheffield Chief Investigator, BTAG Study
11:00–11:15	Discussion	Panel	

*Coffee break and poster viewing (11:15 – 11:35)***Session 2 Oral abstracts (11:35 – 12:40) Chair: Ruth Parks**

	Presentation	Speaker	Affiliations
11:35–12:40	Oral abstracts		
	Process evaluation of the 'Bridging the Age Gap in Breast Cancer' decision support intervention cluster randomized trial	Maria Burton	Faculty of Health and Wellbeing, Sheffield Hallam University, Sheffield, UK
	Decision making in older women with primary breast cancer: The trade-off of the risks and benefits of treatments.	Penny Howard	School of Medicine, The University of Nottingham, UK
	Routine HER2 testing in patients aged over 80 – is it a step too far?	Sona Singh	Worcestershire Acute Hospitals NHS Trust, Worcester, United Kingdom
	Pectoral nerve blocks (PECS) and sedation: a way to avoid general anaesthesia in breast surgery. Our early experience with elderly patients.	Emanuele Garreffa	Breast Unit, Ospedale Civile "Mazzini" AUSL4 TE, Teramo, Italy
	Cytoplasmic expression of cyclin E in primary breast tumours from older women exclusively predicts breast cancer-specific mortality	Simon Johnston	School of Medicine, The University of Nottingham, UK

*Lunch break and poster viewing (12:40 – 13:40)***Session 3 Patients and carers (13:40 – 15:00) Chair: Etienne Brain**

	Presentation	Speaker	
13:40–14:30	Interviewing patients and carers	Facilitated by Joanne York	Consultant Radiographer, Royal Derby Hospital
14:30–14:50	Approach to dementia	Siri Rostoft	Associate Professor, Department of Geriatric Medicine, University of Oslo, Norway
14:50–15:00	Discussion	Panel	

Coffee break and poster viewing (15:00 – 15:20)

Session 4 Challenges in screening (15:20 – 16:45) Chair: Kwok-Leung Cheung

	Presentation	Speaker	
15:20–15:40	Benefits and harms of screening of older women	Andrew Evans	Professor of Breast Imaging, University of Dundee
15:40–16:00	Behaviour of ductal carcinoma <i>in situ</i> (DCIS)	Sarah Pinder	Professor of Breast Pathology, Kings College London
16:00–16:20	Challenges in the management of DCIS	Christos Markopoulos	Professor of Surgery, National & Kapodistrian University of Athens, Greece
16:20–16:35	Discussion	All faculty	
16:35–16:45	Conclusion – summary and ways forward	Kwok-Leung Cheung	

[Close](#)

Acknowledgements: The ‘5th Symposium on Primary Breast Cancer in Older Women’ has been supported by the following companies, to whom we are grateful. The venue hire and subsistence for this Symposium has been sponsored by the following who have had no control over the educational content of this activity:

SPEAKERS' PROFILES

Etienne Brain

Etienne Brain is a medical oncologist at Institut Curie/Saint-Cloud, France. He is the Chair of the Breast Cancer Group of the European Organization for Research and Treatment on Cancer. He was the president of the International Society of Geriatric Oncology from 2014–2016. He chairs the French intergroup dedicated to clinical research in geriatric oncology, namely DIALOG. He is very committed to clinical research covering breast cancer and geriatric oncology. His most recent interest focuses on competing risks for mortality in older breast cancer patients, trying to better define the indication of systemic treatment in the adjuvant setting.

Kwok-Leung Cheung

Kwok-Leung Cheung, qualified and trained in Hong Kong, was appointed as Consultant Breast Surgeon, Nottingham University Hospitals in 2001. He joined the University of Nottingham in 2004. In 2011, he became a member of the Derby Breast Unit. In 2007 he was selected as an International Guest Scholar of the American College of Surgeons. He is part of the UK National Cancer Peer Review team, and also a member of a number of national and international societies, including the International Society of Geriatric Oncology where he is currently the UK National Representative and a member of the Surgical Task Force.

Andrew Evans

Andy Evans is professor of breast imaging at Dundee University. He is a world leading authority on shear-wave elastography of the breast. Other fields of expertise include breast cancer screening and ductal carcinoma *in situ*. He is a past Chairman of the British Society of Breast Radiology, a member of the scientific committee of the European Society of Breast Imaging and a member of Breast Imaging subcommittee of the European Congress of Radiology. His research outputs include 170 peer reviewed publications, 17 book chapters and 3 books. He also plays the French horn and is a successful composer of classical music.

Christos Markopoulos

Christos J. Markopoulos, MD, PhD, FEBS is Professor of Surgery in the faculty of Medicine of the National and Kapodistrian University of Athens and director of the Breast Unit at Athens Medical Centre in Greece. He qualified from Athens University Medical School in 1979 and he specialized in general surgery (1985). He received his PhD from Athens University, Greece in 1985 and his MPhil degree in oncology - breast cancer from University of London, United Kingdom in 1988. He worked as a senior registrar at the Breast Unit of St George's Hospital and Medical School and at The Royal Marsden Hospital in London (1985–1988) and he has also been research fellow at the Ludwig Institute for Cancer Research at Sutton, United Kingdom.

Professor Markopoulos has published over 350 scientific papers in international and Greek medical journals having over 5,000 citations and has also authored several books on breast disease. He is a member of the British Association of Surgical Oncology (BASO), the Association of Breast Surgery at The Royal College of Surgeons (ABS), the American College of Breast Surgeons (ACBS) and the European Society of Surgical Oncology (ESSO).

He is the current President of UEMS – EBS – Division of Breast Surgery and head of the exams for the European Board of Surgery Qualification (EBSQ) in Breast Surgery. He was an elected member of the EUSOMA Executive Committee from 2010 to 2016.

In 2000, he founded "The Hellenic Society of Breast Surgeons – HSBS" (President of the society from 2000 to 2015). He has organized a large number of national and international postgraduate courses and meetings on breast cancer over the last 30 years as well as lecturing extensively as an invited speaker at national and international congresses.

Ruth Parks

Ruth Parks qualified and completed her training to date at Nottingham University (UK). She is currently in her second year of Core Surgical Training with aspirations to pursue a career in Breast Surgery, through the General Surgery training programme. After completing her dissertation from the University of Nottingham in the field of Comprehensive Geriatric Assessment in the older woman with primary breast cancer, Ruth continues this work to date and has successfully published and presented internationally on this topic. Ruth is a member of the International Society of Geriatric Oncology (SIOG) and a member of SIOG's Surgical Task Force.

Sarah Pinder

Sarah Pinder undertook her medical degree in Manchester and started her histopathology training in Manchester and then Nottingham and, via Senior Lecturer/Consultant posts in Nottingham and then Cambridge, is now Chair of Breast Pathology at Kings College London. As Lead Specialist Breast Pathologist at Guy's & St Thomas' Hospitals she reports breast pathology (50% time NHS) and has a large referral practice.

Her translational research interests are also focused on breast cancer pathology (particularly ductal carcinoma *in situ*) and she has published over 300 articles in the peer-reviewed literature, as well as over 100 invited articles and chapters.

She Chairs the Royal College of Pathologists/UK NHS Breast Screening Pathology (BSP) Coordinating Committee and is a member of various other BSP committees, such as the BSP Advisory Committee and the Research Advisory Committee, as well as the Sloane Project Steering Group. She is a member of a number of clinical trial and translational research committees, including the low risk DCIS trial (LORIS) (for which she is one of three central review pathologists), OPTIMA and MAMMO50, amongst others.

Siri Rostoft

Siri Rostoft is a medical doctor at Oslo University Hospital, Norway, specialized in internal medicine and geriatric medicine. She completed her PhD about geriatric assessment in older surgical cancer patients in 2011, and works as an assistant professor at the University of Oslo. Her main research interests in geriatric oncology are the clinical importance of geriatric assessment and interventions and frailty. She is a deputy editor for the Journal of Geriatric Oncology.

Richard Simcock

Richard Simcock has been a Consultant Clinical Oncologist at the Sussex Cancer Centre since 2004. He is a Consultant Medical Advisor for Macmillan Cancer Support and is the Chair of the Expert Reference Group for Cancer in the Older Person. He is a member of the NCRI Psychosocial Oncology Subgroup and the NABCOP Steering Group. He was recently part of the James Lind Alliance Priority Setting Partnership for Research Priorities for People Living with and Beyond Cancer. He tweets @BreastDocUK and in this role coordinates an international bimonthly radiation oncology journal club

Lynda Wyld

Lynda Wyld is a clinical academic at the University of Sheffield and holds an honorary contract with Doncaster and Bassetlaw Teaching Hospitals where she works as a consultant Oncoplastic breast surgeon. Her main research interest is the management of breast cancer in older women. She is the Chief Investigator for the Age Gap multicentre trial which has just completed recruitment of nearly 3.5 thousand older women with breast cancer across the UK. She is past President of the British Association of Surgical Oncology and served as the Chair of the education and training committee of ESSO (the European Society of Surgical Oncology) between 2012 and 2018. She is the secretary of the European Breast Exam Board and a member of the Board of EUSOMA (European Society of Mastology).

Joanne York

Joanne York has worked in breast care for many years. In 1991 she worked at the Nottingham breast unit as a mammographer, later working also as a mammography trainer. In 2003 she joined the Derby breast unit as an advanced practitioner. This role was influential to Joanne, encouraging her to extend her role. In 2013 she gained a Master's qualification in advanced practice and became a consultant radiographer. Joanne is now an integral part of the Radiology team within the Derby and Burton breast unit. Leading the radiology for the patients on primary endocrine therapy, she has an interest in improving the patient experience for older patients and patients with learning disabilities.

LECTURE ABSTRACTS**L1. Global perspectives – What is new?****Etienne Brain***Department of Medical Oncology, Institut Curie – Hôpital René Huguenin, 35 rue Dailly - 92210 Saint-Cloud, France*

According to Globocan 2018, breast cancer is the commonest and most devastating cancer in women. Although its incidence peaks above 65 years of age in most Western countries, standards for management in older women derive ironically from investigations led in younger patients or in a limited number of old and very fit ones, contrasting often with most goals and expectations that may change over years.

The year 2018 witnessed an important effort led by Doctor Arti Hurria and her team from the City of Hope, Duarte, USA to develop a customized approach for patients older than 65 with early-stage breast cancer: following seminal works on prediction of toxicity to chemotherapy in various malignancies, they developed further a specific scale to assess the risk of occurrence of serious side effects under adjuvant chemotherapy. The final multivariate model combines the CARG Toxicity tool with other oncology history items (disease stage, use of anthracyclines) as well as others reflecting physiological functions and functional reserves (liver functions, duration of chemotherapy > 3 months, ability to walk one mile) or social isolation.

This landmark study demonstrates the need to develop specific programs encompassing information beyond the strict oncology frame, in order to capture supplementary details from other areas in life that matter also to older persons and that create some compensation in the difficult treatment decision making process where one muddles through: staying independent, keeping a social and family network, making still a difference in life around oneself, etc.

We shall review together some of these specific changes for breast cancer, showing the importance of collaboration across borders that SIOG is tackling, breaking down language and cultural barriers, because ageing is a global and worldwide phenomenon that can be overcome irrespective of other differences.

We shall also pay a tribute to Doctor Hurria who died in a car crash early November, reminding us sadly how fragile our lives are.

Financial & competing interests disclosure

Etienne Brain is in receipt of honoraria or consultation fees: AstraZeneca, BMS, Celgene, Clinigen, Hospira, Janssen, Mylan, OBI Pharma, Pfizer, Puma, Roche, Samsung and - receipt of grants/research supports: HalioDx, Amgen, Teva. The author has no other relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript apart from those disclosed. No writing assistance was utilized in the production of this manuscript.

L2. National initiatives – Expert Reference Group for Cancer in Older People and National Audit of Breast Cancer in Older People (NABCOP)**Richard Simcock***Sussex Cancer Centre, Brighton and Sussex University Hospitals NHS Trust*

Delivering high quality care to older adults with cancer is fraught with challenge. The caseload increases, the workforce contracts and the evidence base is often not fit for purpose. Outcomes for older people with cancer in the UK are worse than other European countries.

In recognition of these problems there are now a number of separate national initiatives within the UK to prioritise and coordinate service developments. Four initiatives are described here.

The Expert Reference Group for Cancer in the Older Person is a multidisciplinary group of health care professionals (HCPs) and service users, convened by the cancer charity Macmillan. The group have focused on informing debate around workforce development and training events. The group have led consensus workshops on triage tools and have developed educational toolkits for Oncology HCPs.

Cancer Research UK have commissioned research on delivery of cancer care and subsequently produced a report calling for challenging adjustments to NHS protocol in particular to make allowances within cancer target pathways for assessment and rehabilitation.

The Royal College of Surgeons' National Audit of Breast Cancer Outcomes in Older People (NABCOP) is now preparing a third annual report after a comprehensive 'deep dive' into treatment delivery for older women with breast cancer in the UK. This gives first comprehensive overview on patterns of care in a single major cancer.

Finally, the National Cancer Research Institute (NCRI) has responded to calls within the Independent Cancer Taskforce recommendations to enhance the quality of cancer research for older adults. A NCRI workshop has developed a number of recommendations for researchers and research funders to drive original trial design and analysis.

These initiatives will be presented as important flagship projects that both define the current landscape but provide pragmatic and realistic options for improvement.

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

L3. Updates on the 'Bridging The Age Gap' (BTAG) Study

Lynda Wyld on Behalf of the Age Gap Trial Management Team

University of Sheffield, EU 36, E floor, Medical School, Beech Hill Road, Sheffield, UK

The Age Gap study is a large prospective multicentre cohort study of women over 70 with operable breast cancer in the UK. The study has two main components:

1. A large cohort study to determine the personal and cancer characteristics that determine which frailer women with ER positive cancers can safely avoid surgery and which women with high recurrence risk cancers will benefit from chemotherapy.
2. A cluster randomised trial to evaluate the impact of a bespoke decision support intervention to assist in cancer treatment decision making for older women with early breast cancer.

The trial has now closed, having recruited 3456 women to the cohort study and 1330 women to the cluster trial. Analysis is underway and preliminary results will be presented.

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

Ethical conduct of research

The authors state that they have obtained appropriate institutional review board approval or have followed the principles outlined in the Declaration of Helsinki for all human or animal experimental investigations. In addition, for investigations involving human subjects, informed consent has been obtained from the participants involved.

L4. Interviewing patients and carers

Facilitated by Joanne York

Breast Unit, Royal Derby Hospital, UK

The aims of the session are to gain insight into the patient experience of living with primary breast cancer. With a view to optimising our services for these patients through their journey, not just medically but also emotionally and psychologically.

The patients will be asked to comment on how the decision not to have surgery for their primary breast cancer was arrived at.

How the decision of taking endocrine therapy has impacted on their life, including the frequent visits to the hospital and the effect of medication, will also be discussed.

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes

employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

L5. Approach to dementia

Siri Rostoft

University of Oslo, Oslo, Norway

The risk of dementia and mild cognitive impairment increases with advancing age, and health professionals dealing with older patients with breast cancer are likely to meet patients with dementia. Dementia may influence the ability to consent, compliance to treatment, decision-making and lead to ethical challenges. Furthermore, the risk of caregiver stress is higher. This talk will highlight some of the evidence regarding dementia and breast cancer, as well as presenting clinical considerations for health personnel dealing with patients with breast cancer and dementia.

A literature search using Pubmed was performed on January 17, 2019. The search terms used were “(“breast cancer”[Mesh]) AND (“dementia”[Mesh]) OR (“cognitive”[Mesh]))”. The search was restricted to the last 10 years. Abstracts were reviewed for relevance to the review question. The search resulted in 45 hits, of which 6 were relevant to this talk.

Cognitive dysfunction has been reported in 17–75% of women with breast cancer treated with chemotherapy. Dementia, a more severe condition, is much less frequent, but still more likely to occur both before and during treatment in women over the age of 80. When dementia affects decision-making capacity, special considerations are warranted, such as discussing treatment alternatives with caregivers. Dementia can affect adherence to medications, increases the risk of delirium (acute confusional state), and has consistently been shown to be a negative prognostic factor. Dementia may also lead to overburdened caregivers. Thus, health professionals need to look beyond the standard care pathway for breast cancer when their patient has a diagnosis of dementia.

A diagnosis of dementia in a patient with breast cancer has large impact on the treatment trajectory, and specific measures need to be put in place before, during, and after treatment. It is therefore important to uncover dementia in patients with breast cancer.

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

Ethical conduct of research

The authors state that they have obtained appropriate institutional review board approval or have followed the principles outlined in the Declaration of Helsinki for all human or animal experimental investigations. In addition, for investigations involving human subjects, informed consent has been obtained from the participants involved.

L6. The benefits and harms of screening older women

Andrew Evans

Dundee University, Ninewells Hospital & Medical School, UK

A number of factors make screening women over the age of 70 appear attractive. The cancer incidence is high and mammographic sensitivity and specificity are excellent. However there is currently no RCT evidence to confirm a mortality benefit from screening women over 70 and observational studies from Sweden looking at mortality reduction by age band in counties who began screening at different times found a mortality reduction in women aged 40–69 but not in women over 70. This may be because of higher rates of over diagnosis in older women caused by the more indolent pathological characteristics of breast cancer in older women and their shorter life expectancy. The percentage of all female deaths due to breast cancer in England and Wales drops from 17% in women aged 45–49 to 4% in women in their 70's and 2% in women in their 80's. The proportion of women dying of breast cancer as a proportion of all deaths within 5 yrs of a symptomatic cancer drops from 95% for women <50 yrs to 17% in women over 80. This suggests the opportunity to reduce mortality by screening older women is modest. The results of the age extension trial are therefore awaited with interest.

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

L7. Behaviour of ductal carcinoma *in situ* (DCIS) in the older population

Sarah Pinder

School of Cancer & Pharmaceutical Sciences, King's College London, 9th Floor, Innovation Hub, Comprehensive Cancer Centre at Guy's Hospital, Great Maze Pond, London, SE1 9RT

Whilst it is clear that invasive breast cancer is heterogeneous, it is less widely recognised that DCIS is similarly variable in presentation, biology and histological appearance, and behaviour. Just like invasive disease, DCIS can be classified based on grade, architectural pattern and immunophenotype, but is much less studied than invasive breast cancer; it is also harder to examine with molecular techniques and requires longer follow-up to understand the clinical significance of variation.

DCIS is most commonly detected through breast screening, but the older population may not self-refer for mammography. Indeed, DCIS is, unsurprisingly, most common (per 100 000 women) in the UK in those aged 50 to 69, but it has increased in incidence in the UK for all ages, since the early 1990s.

Research on differences in DCIS by women's age have typically focused on younger (rather than older) women. Some, small, series have reported that DCIS in women aged <42 is marginally more often ER positive (90 vs 79%; NS) but more often HER2 positive (65 vs 38%; NS) than disease in those aged >60 years [1]. Others have recorded no difference in ER status of DCIS, in grade of DCIS, or in the presence of associated necrosis [2,3] by age and overall no clear biological differences have been reported.

Data on the clinical behaviour of DCIS in older women are also limited. The protracted natural history of low grade DCIS, which may progress to invasive disease more than 40 years after a missed diagnosis, is very different from high grade DCIS. This may be of particular relevance in the older population in whom randomised clinical trials of surveillance vs surgical excision for low risk DCIS (LORIS, LORD, COMET) may be especially pertinent. It is also noteworthy that low grade DCIS, if it does progress, typically presents as low grade invasive cancer (rather than high grade DCIS and grade 3 invasive disease) and also that no survival benefit is seen in patients undergoing surgery for low grade DCIS [4].

Although the majority of women in the Sloane Project are within the UK screening age range (i.e. 50 to 70), there is little difference in breast conserving surgery vs mastectomy rates by patient age, but women aged 70 or more are less likely to receive breast radiotherapy than those aged 50 to 70 in this, and other, series. However, no difference in breast cancer mortality is reported in the older woman with DCIS [5]. For all patients with DCIS, a difference in survival is seen for those who develop invasive (but not DCIS) recurrence [6]. Future research should focus on identification of features that predict for invasive recurrence and more studies on DCIS in the older population are needed.

References

1. Rodrigues NA, Dillon D, Carter D, Parisot N, Haffty BG. Differences in the pathologic and molecular features of intraductal breast carcinoma between younger and older women. *Cancer* 97(6), 1393–1403 (2003)
2. Ho A, Goenka A, Ishill N *et al.* The effect of age in the outcome and treatment of older women with ductal carcinoma *in situ*. *Breast* 20(1), 71–77 (2011)
3. Alvarado R, Lari SA, Roses RE *et al.* Biology, treatment, and outcome in very young and older women with DCIS. *Ann. Surg. Oncol.* 19(12), 3777–3784 (2012)
4. Sagara Y, Mallory MA, Wong S *et al.* Survival benefit of breast surgery for low-grade ductal carcinoma *in situ*: A population-based cohort study. *JAMA Surg.* 150(8), 739–745
5. Narod SA, Iqbal J, Giannakeas V, Sopik V, Sun P. Breast cancer mortality after a diagnosis of ductal carcinoma *in situ*. *JAMA Oncol.* 1(7), 888–896 (2015)
6. Thompson AM, Clements K, Cheung S; Sloane Project Steering Group (NHS Prospective Study of Screen-Detected Non-invasive Neoplasias). Management and 5-year outcomes in 9938 women with screen-detected ductal carcinoma *in situ*: the UK Sloane Project. *Eur. J Cancer* 101, 210–219 (2018).

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

L8. Challenges in the management of DCIS**Christos Markopoulos**

Medical School, National and Kapodistrian University of Athens – Greece

Older women with breast cancer are underrepresented in clinical trials and evidence on the best treatment in this group of patients is insufficient. On the other hand, ageing is often associated with comorbidities, geriatric syndromes, frailty and limited life expectancy and tailored treatment is mandatory.

DCIS identified on screening mammography is typically asymptomatic, more often appearing as an area of microcalcifications and, without treatment, it is estimated that only 20–30% will progress to invasive cancer. At present, despite concerns about overtreatment, most women undergo surgical resection with or without radiotherapy and/or endocrine therapy to decrease the risk of local recurrence - particularly with invasive disease - and increase survival. However, DCIS likelihood of recurrence varies, depending on clinicopathological factors: extended DCIS, ER-negative, as well as HER2-positive DCIS have a higher rate of recurrence than ER-positive DCIS, although, overall the risk of death from breast cancer after a diagnosis of DCIS is rare: approximately 1% and 3% at 10 and 20 years respectively.

Age remains an important risk factor for DCIS in women over 70 years old but, the majority of cases in this age group are intermediate or low nuclear grade DCIS, which may have a more indolent course than high grade DCIS regarding potential development of invasive disease. Furthermore, the risk of recurrence of DCIS decreases with age, independently of other pathological factors, whilst surgery and radiotherapy as well, do not improve survival in low grade DCIS cases, most likely due to the shorter life expectancy and other competing risks of death of older women.

Treatment options of DCIS found in screening in older women and confirmed by core biopsy (CB) should be discussed in multidisciplinary meetings and may include surveillance only, surgery with or without radiotherapy and/or endocrine treatment. Treatment decisions should not only take into consideration disease parameters but, life expectancy, risk and benefits of treatment, current quality of life (QoL) and patient's preference as well.

Selective references:

- Stacey A. Carter, Sarah E. Pinder, and Alastair M. Thompson. Ductal Carcinoma *in situ*. Breast Cancer Management for Surgeons. Wyld L, Markopoulos C, Leidenius M, Senkus-Konefka E. (Eds.). *Springer* (2018).
- Mislav AR, Cheung KL, Hamaker ME, Kunkler I, Markopoulos C, Orecchia R, Brain E, Biganzoli L. Controversial issues in the management of older adults with early breast cancer. *J. Geriatr. Oncol.* 8(6), 397–402 (2017).
- Markopoulos C, van de Water W, van de Velde CJ. Breast cancer in the elderly: reducing the losses. *Future Oncol.* 9(9), 1253–6 (2013).
- Markopoulos C, van de Water W. Older patients with breast cancer: is there bias in the treatment they receive? *Ther. Adv. Med. Oncol.* 4(6), 321–7 (2012).

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

ORAL ABSTRACTS

O1. Process evaluation of the Bridging the Age Gap in Breast Cancer decision support intervention cluster randomized trial

Maria Burton^a, Kate J Lifford^{*b}, Lynda Wyld^c, Fiona Armitage^c, Karen Collins^a, Malcolm Reed^d, Kate Brain^b, Adrian Edwards^b on behalf of the Age Gap Trial Team.

^a*Faculty of Health and Wellbeing, Sheffield Hallam University, Sheffield, UK;* ^b*Division of Population Medicine, Cardiff University, Neuadd Meirionnydd, Heath Park, Cardiff, CF14 4YS, UK;* ^c*Department of Oncology & Metabolism, University of Sheffield, Sheffield, UK;* ^d*Brighton and Sussex Medical School, Brighton, UK, m.reed@bsms.ac.uk*

*Authors contributed equally

Background: The Age Gap cluster randomised trial sought to test 'complex' decision-support interventions (DESI) consisting of an online decision tool, a brief decision aid (BDA) and a booklet for patients facing a treatment choice of either:

1. surgery + endocrine therapy (ET) versus primary endocrine therapy (PET), for frail older women; or,
2. adjuvant chemotherapy or no chemotherapy for women having had surgery for high recurrence risk breast cancer.

A process evaluation (PE) was undertaken to identify how the interventions worked and aid interpretation of the trial results. The primary aims of the PE were to understand how the DESIs were implemented, the barriers and facilitators, and how acceptable and useful they were to staff and patients. **Methods:** Multiple methods of data collection were used: questionnaires, interviews, case report forms (CRFs) and audio-recording of consultations. Of 46 trial recruiting sites, 16 were PE sites. Interviews were analysed using a Framework approach. Numeric data were analysed using SPSS. **Results:** The trial included 1321 participants, 176 from PE sites were invited to participate; 77 patients provided data for the PE. Ten healthcare professionals (HCPs) took part in a telephone interview and seven in audio-recorded consultations. The online tool was used by surgeons in ways personalised to the patient and their own practice and, provided structure to guide treatment options. The booklets were introduced predominantly by nursing staff, with the BDA used as a summary sheet rather than to stimulate discussion as intended. The information provided encouraged more active involvement in decision making. Barriers to implementation were seeing the DESIs as time consuming as well as logistical problems e.g. access to computers. **Discussion:** Patient and HCPs feedback on the tools was positive but utilisation was variable both between centres and clinicians. Adoption was hindered by other information materials commonly provided to patients, time and IT constraints.

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

O2. Decision making in older women with primary breast cancer: The trade-off of the risks and benefits of treatments

Penny Howard¹, Kwok-Leung Cheung¹ & Karen Cox²

¹*School of Medicine, University of Nottingham, UK;* ²*University of Kent, UK*

Background: Different treatments (mastectomy, breast conservation surgery [BCS] with radiotherapy and primary endocrine therapy [PET]) present a 'preference sensitive decision' for older women with a diagnosis of primary breast cancer. Subsequently, patient's priorities, values and preferences should be considered to ensure a 'quality decision' is made. However little is known as to what influences older women's treatment decisions. **Methods:** The aim of this study was to explore prospectively what influences older women's treatment decisions for primary breast cancer. A longitudinal, qualitative approach was taken. Older women with primary breast cancer (stage I/II) offered either surgery (BCS or mastectomy) or PET were interviewed at the time of diagnosis and six months after treatment. Grounded theory was utilised to analyse the data. **Results:** 31 women (aged 70–92 years) were interviewed (15 mastectomy; 10 BCS and 6 PET). Participants appraised the risks and benefits of treatment options. Considering their ability to cope with treatment, in relation to functioning, quality of life and available resources, participants

prioritized what was important to select the optimal treatment for them as an individual. Participants identified two main priorities when deciding treatment:

- Optimise outcome – disease free, reducing the chance of recurrence and additional, future treatment and not dying prematurely.
- Minimise the impact and disruption of treatment to preserve independence/functioning/quality of life and not burdening others.

These priorities competed against each other and participants weighed up and traded-off the risks and benefits of each treatment option, not wanting too little or too much treatment. Older women overestimated the risks of treatments and identified contingency plans in case treatment was ineffective. **Discussion:** Trade off during health-related decision-making is especially significant for older women who may place differing importance on treatment goals, due to life stage and functioning. There is opportunity to develop age-specific, decision-making interventions to assist older women to appraise the treatment options and consider the risks of breast cancer treatment to make an individualistic choice

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

Ethical conduct of research

The authors state that for investigations involving human subjects, informed consent has been obtained from the participants involved.

O3. Routine HER2 Testing in Patients aged over 80 – Is it a step too far?

S Singh, M Green, M Mullan & R Bright-Thomas

Worcestershire Acute Hospitals NHS Trust, Worcester, United Kingdom

Background: NICE guidance recommends routine testing for the human epidermal growth factor receptor 2 (HER2) in all new breast cancersⁱ. However, adjuvant monoclonal antibody treatment against this receptor should only be offered in conjunction with chemotherapy. Given that older patients are less likely to receive chemotherapy, even when deemed appropriate by guidelinesⁱⁱ, we reviewed the costs and benefits of routine testing in this group. **Method:** Using the Somerset Cancer Register, we identified all patients aged >80 at the point of diagnosis over a 24 month period. We reviewed tumour biology and adjuvant therapies received. **Results:** 155 cancers were identified in 146 patients. Only 5 cancers (3.2%) did not undergo routine HER2 testing. Of the remaining 150 cancers (141 patients), 1 had insufficient tissue for analysis and only 13 (8.67%) were HER2 positive, slightly below the national average. Only 2 patients were offered chemotherapy. Both were HER2 positive. One subsequently refused treatment, the other progressed rapidly and did not receive it. **Discussion:** Despite routinely testing 150 cancers (at a cost to our trust of over £7000 and precious laboratory time), HER2 receptor status made no change in the management of breast cancer in any woman with a primary breast cancer aged >80. Whilst we are not suggesting withholding any tests or treatment based on age alone, we believe that specific early discussion in the MDT about fitness for chemotherapy, and willingness to consider it, should be undertaken before requesting this costly test in this group.

References

- [1] www.nice.org.uk/guidance/ng101/chapter/Recommendations#diagnostic-assessment-and-adjuvant-therapy-planning
- [2] www.ncbi.nlm.nih.gov/pubmed/20655243

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes

employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

Ethical conduct of research

The authors state that for investigations involving human subjects, informed consent has been obtained from the participants involved.

O4. Pectoral nerve blocks (PECS) and sedation: a way to avoid general anaesthesia in breast surgery. Our early experience with elderly patients.

Garreffi Emanuele¹, Ferreo Tiziana¹, Genco Emilia¹, De Simone Carolina¹, Cantagalli Franco² & Brucchi Maurizio¹

¹Breast Unit – Ospedale Civile ‘Mazzini’ AUSL4 TE – Teramo, Italy; ²Unit of Anaesthesia and Intensive Care – Ospedale Civile ‘Mazzini’ AUSL4 TE – Teramo, Italy

Introduction: The use of regional anaesthetic (RA) techniques in breast cancer surgery is limited to postoperative pain management and not as the primary anaesthesia. We describe our experience with PECS block and sedation as an alternative to general anaesthesia (GA) in breast surgery for elderly patients. The results are compared with a control group receiving GA. **Methods:** All the women affected by unilateral breast cancer undergoing simple wide local excision (WLE) or mastectomy (Mx) +/- axillary surgery were included in this study. RA was performed as follows:

PECS I: 15 ml of mepivacaine 2% + levobupivacaine 0.5% between pectoral major and pectoral minor.

Modified PECS II: 20 ml of mepivacaine 2% + levobupivacaine 0.5% over the 3rd and 4th rib at the level of serratus anterior.

Parasternal infiltration (Mx only).

Sufficient analgesia was obtained in 30 minutes. Remifentanyl (0.1 µg/kg/min) + propofol (1 – 3 mg/kg/h) were infused during surgery. No opioids were used in the RA group.

Pain level (1 – 10) in recovery room and the morning after surgery, post-operative nausea and vomiting (PONV) and post-operative agitation/confusion were recorded.

Results: From January 2018 to November 2018, 38 women aged 70 – 90 years received unilateral breast cancer surgery.

	RA					GA				
	N	Age	Rec.	Morn.	Events	N	Age	Rec.	Morn.	Events
WLE + SNB	6	76.16	2.83	2.66		4	77	3.75	3	1 PONV
	4	78.75	2.5	2.5		2	77.5	4.5	2.5	1 PONV
WLE + ANC										
MX + SNB	6	74.33	3.16	2.66		6	82.66	3.5	3	1 confusion
MX + ANC	4	79.75	3.5	3.25		6	78.66	3.83	3	1 confusion 1 PONV

Conclusions: RA with sedation is a safe and effective alternative to GA in breast surgery with no significant difference regarding pain control and less side effects (no PONV or confusion in RA group).

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

O5. Cytoplasmic expression of cyclin E in primary breast tumours from older women exclusively predicts breast cancer-specific mortality

SJ Johnston¹, BM Syed¹, RM Parks¹, AR Green¹, IO Ellis¹, K Keyomarsi², KK Hunt² & KL Cheung

¹*School of Medicine, The University of Nottingham, UK.* ²*Department of Breast Surgical Oncology, The University of Texas MD Anderson Cancer Center (MDACC), Houston, Texas, USA*

Introduction: Primary breast cancer (BC) in the older (>70 years) population has distinct biological characteristics. Older patients with primary BC are more likely to die of 'non-BC' related causes compared to their younger counterparts. Biomarkers that may influence treatment strategy therefore require interpretation in the specific context of older women. Cyclin E regulates transition of the cell cycle from G1 to S phase, and its deregulation is implicated in breast cancer pathogenesis and prognosis [1]. Tumour-specific isoforms of cyclin E localise to the cytoplasm. Expression of cytoplasmic cyclin-E (c-cyclin E) is linked with poor clinical outcome [2]. This abstract presents multivariate analysis of breast cancer-specific survival (BCSS) by c-cyclin E and clinical markers of disease biology from a cohort of older women. The primary outcome, BCSS, excludes deaths from competing causes and is used as a surrogate for tumour biology. **Methods:** Between 1973 and 2010, 813 older women underwent initial surgery for early breast cancer and were followed up in a dedicated clinic in Nottingham. Excised tumours from 517 of these patients were successfully incorporated into a tissue microarray (TMA). Immunohistochemical staining of the TMA was used to assess protein expression of c-cyclin E using an assay developed at MDACC, plus a panel of 24 biomarkers. Of these, oestrogen receptor (ER), progesterone receptor (PR), human epidermal growth factor 2 (HER2) and Ki67 are currently used in clinical practice and are analysed alongside c-cyclin E. Grade was assessed from the primary tumour. Multivariate analysis of BCSS was performed by Cox proportional hazard test. **Results:** In multivariate analysis alongside markers of disease biology currently used in the clinic (ER, PR, HER2, Ki67 and tumour grade), c-cyclin E is the only factor that independently predicts BCSS in this cohort of older women (HR 5.0, 95% CI 2.1 – 12.0; $p < 0.001$). **Conclusions:** In the older population with primary breast cancer, c-cyclin E expression is the only independent biological marker of BCSS. Patients with low c-cyclin E expression are unlikely to die of breast cancer. These data have potential to influence treatment strategy in older patients. For example, patients with ER+, c-cyclin E negative disease plus multiple co-morbidities may prefer primary endocrine therapy over initial surgery. This hypothesis warrants prospective clinical evaluation.

References

1. Keyomarsi K *et al.* Cyclin E and survival in patients with breast cancer. *N Engl J Med.* 347(20), 1566–1575 (2002).
2. Hunt KK *et al.* Cytoplasmic cyclin E predicts recurrence in patients with breast cancer. *Clin Cancer Res.* 23(12), 2991–3002 (2017).

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

Ethical conduct of research

The authors state that they have obtained appropriate institutional review board approval or have followed the principles outlined in the Declaration of Helsinki for all human or animal experimental investigations. In addition, for investigations involving human subjects, informed consent has been obtained from the participants involved.

POSTER ABSTRACTS

P1. To test the feasibility of undertaking Comprehensive Geriatric Assessment (CGA) in real life clinical setting for older women with operable primary breast carcinoma

Alia H Kayani¹, Ruth M Parks² & Kwok-Leung Cheung

¹Breast Unit, Royal Derby Hospital & ²School of Medicine, University of Nottingham, Royal Derby Hospital, UK

Background: This research is intended to apply CGA in real life clinical setting. Its purpose was to identify time, resource and place to perform this additional activity. **Methods:** A prospective, single centre study was conducted evaluating a previously validated, cancer-specific CGA tool in older women with primary (stage I/II) breast cancer. CGA was conducted within 6 weeks post-diagnosis. Total CGA scores included assessment of: time taken for activities of daily living, independent activities of daily living, performance status, comorbidity, mood, social activity and support. All females at or over 70 years of age newly diagnosed with primary breast cancer, who could read and write and consent were invited to the study. Previous, metastatic cancers or incapacity to consent were excluded. **Results:** Over a period of five months, 16 completed the CGA assessments were available for analysis. Mean age was 75.5 years, performance score 90–100%, TUG 15.87, falls 0, Cognition: Orientation memory – Concentration Test 0 score on average. The average total time for CGA was 17 minutes. **Discussion:** Nearly 80% of CGAs were performed on pre op assessment day and remaining on morning of surgery. None of patients volunteered for this research on day of diagnosis. With proper resource allocation this clinical activity can be undertaken in 15–20 minutes for this cohort of patients. This research is ongoing and we intend to include 50 patients to refine the results.

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

Ethical conduct of research

The authors state that for investigations involving human subjects, informed consent has been obtained from the participants involved.

P2. Tumor characteristics and treatment pattern of operable breast cancers in 212 patients aged ≥ 70 years: A two-centre experience

Abdalla Saad Abdalla Al-Zawi¹ & Beata Adamczyk²

¹Basildon University Hospital, UK and ²Greater Poland Oncology Centre, Poznan, Poland

Introduction: There is little information regarding the biology of breast cancer (BC) in elderly patients. In this study, we examined a cohort of elderly patients with BC that received surgical treatment and analysed the patho-morphological patterns. **Methods:** A group of 212 patients aged ≥ 70 years, diagnosed with BC between 2011–17, in Basildon University Hospital in Essex-UK and Greater Poland Oncology Centre in Poznan-Poland, were included. The surgical techniques and patho-morphological characteristics were analysed. **Results:** The study group, has a higher proportion of mastectomy (Mx) (65%) than Breast Conservation Surgery (BCS) (35%). Mx with axillary node clearance (ANC) was done in 20% of cases, and Mx with sentinel lymph node biopsy (SLNB) in 44%. Only 8% of cases underwent BCS and ANC. Invasive ductal carcinoma was found in 72% of cases, invasive lobular carcinoma 10%, mucinous carcinoma 2%, and DCIS 8%. G1 invasive cancer was seen in 21% of invasive cancer cases, G2 in 51% and G3 in 27%. The invasive cancer cases showed ER+ve in 82%, ER/PR-ve in 18%, Her-2 +ve in 18% and 11% were triple negative. **Discussion:** BC known to be less aggressive in the older patients and the life expectancy of patients with BC dying of other causes to be indistinguishable from that of the matched population without BC. The older age group do not necessarily always present with locally advanced disease or poor physiological reserve. The surgical techniques indicated clearly the predominance of Mx (65%) over BCS (35%). This reflects many aspects as tumour size, multi-focality, and patient choice as patients want to avoid radiotherapy after BCS. **Conclusion:** The breast cancer disease is less aggressive in the older patients. Patients aged ≥ 75 years are more likely to have a poor physiological reserve, and tended to receive less intensive treatments compared to the other age groups. Patients optimisation is recommended as they should have the same management options offered to the younger counterparts.

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

P3. Are we performing too many diagnostic surgical excisions for B3 lesions in older women?

RM Parks and L Whisker

Nottingham Breast Institute, Nottingham University Hospitals NHS Trust, UK

Background: The NHSBSP guidelines updated in 2016, state that all B3 lesions warrant further histological examination unless completely excised. This should be surgical excision (SE) for papillary lesions with atypia or cellular fibroepithelial lesions. The remainder of B3 lesions should be treated with vacuum-assisted-excision (VAE). The aim of this piece of work was to look at management of B3 lesions in older women (≥ 65 years), an often comorbid group. **Methods:** Our breast cancer database was interrogated, to extract all patients with a histological diagnosis of B3 lesion on core biopsy from 1st Jan – 31st December 2017. Data was extracted on mode of referral and histological outcome. **Results:** A total of 71 B3 lesions were obtained on core biopsy (CB), 18 of these in women ≥ 65 years. Of these, 12 (67%) were screen detected and the rest presented symptomatically. On review, 16 (89%) were managed in accordance with the guidelines. In the two cases which were not managed according to guidelines, both cases had SE instead of the recommended VAE. Final histology of both patients was benign. However, in both cases, SE of the B3 lesion, was performed at the same time as surgical treatment for invasive cancer on the opposite breast; the patient underwent one general anaesthetic for bilateral surgery. Of the remaining 16 cases, 3 had SE for papillary lesions (2 benign, 1 invasive requiring further surgery), 2 were initially treated with VAE (as opposed to CB) and were completely excised and the remaining 11 had VAE. Of the 11 undergoing VAE, 4 had a diagnosis of invasive carcinoma of which 3 required further surgery (1 completely excised at VAE). **Discussion:** In this cohort, we are managing B3 lesions in accordance with guidelines. We need to ensure we continue to do this to prevent over-treatment in this at-risk population.

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

Ethical conduct of research

The authors state that for investigations involving human subjects, informed consent has been obtained from the participants involved.

P4. Quality of life evaluation and its relationship with treatment modalities among older women with primary operable breast cancer: Baseline results of a multicentre study

Ross A. Zahit¹, Ruth M. Parks¹, Penny Howard¹, Holly Blake^{2,3} & Kwok-Leung Cheung¹

¹*School of Medicine, University of Nottingham, UK;* ²*School of Health Sciences, University of Nottingham, UK &*

³*NIHR Nottingham Biomedical Research Centre, Nottingham, UK*

Background: Breast cancer is common among older women. Different experiences perceived during the journey may result in different quality of life (QoL) issues when compared to their younger counterparts. This may influence treatment decision. This study aimed to evaluate the relationship between baseline QoL measurement and treatment modalities among older women with primary breast cancer undergoing surgery and non-surgical treatment (i.e. primary endocrine therapy, PET). **Methods:** As part of a wider study on older women with primary operable breast cancer, baseline QoL was measured using the European Organisation for Research and Treatment of Cancer (EORTC) QoL questionnaire (QLQ-C30), and breast cancer component (QLQ-BR23). Treatment decision was made by the clinical team independent of the study and was not guided by QoL assessment. Comparison was made between scores for the QoL questionnaires (53 questions with a total of 23 components) and whether the patient had surgery or non-surgery using t-test for normally distributed data or otherwise the Mann-Whitney test. **Results:** A total of 76 women (surgery: n = 51; PET: n = 25) were recruited from three different centres. Mean

age was 78 years (range 68–93; SD = 6.01). At baseline, patients undergoing PET were more likely to have the following, when compared to patients treated by surgery:

- more trouble doing strenuous activities ($p = 0.010$)
- greater trouble taking a long ($p = 0.000$) or short ($p = 0.000$) walk
- increased need to stay in bed or a chair during the day ($p = 0.001$)
- feeling more tense ($p = 0.050$) and worry ($p = 0.002$)
- greater pain in the arm or shoulder ($p = 0.012$)
- greater difficulty with raising or moving arm sideways ($p = 0.020$)
- greater pain in the area of affected breast ($p = 0.009$)

Binary logistic regression showed that a feeling of worry was an independent predictor of treatment undertaken ($p = 0.047$). **Conclusions:** This study demonstrated that older women undergoing PET have a greater impact on quality of life at baseline in comparison with surgical patients. Further understanding may inform the use of different support measures. The study is ongoing.

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

Ethical conduct of research

The authors state that they have obtained appropriate institutional review board approval or have followed the principles outlined in the Declaration of Helsinki for all human or animal experimental investigations. In addition, for investigations involving human subjects, informed consent has been obtained from the participants involved.

P5. Glenfield Primary Endocrine Clinic – the first 3 years

Frances Kenny & Kay Hawes

Breast Care Centre, Glenfield Hospital, Leicester, UK

Background: Leicester was one of the first breast Centres in the UK to develop a multidisciplinary assessment clinic to aid treatment decisions for older women with ER+ve breast cancer. This has been running for a number of years. Traditionally patients in whom decision was for primary endocrine therapy (PET) were returned to referring consultant, where follow-up has at times been variable. In order to address this, we have set up a Primary Endocrine Clinic (EC) with view to optimising management for patients on PET. **Methods:** The EC commenced January 2016, initially once per month, increased to fortnightly in 2018 due to demand. It is run by a single surgeon with interest in endocrine therapy, supported by a breast care nurse. Response is assessed clinically with callipers and duration of response recorded. Patients are given opportunity to discuss any side-effects or concerns. **Results:** 180 women have been recruited to date (median age 88 years). 70% had T1-2 disease, 11% T3 and 13% T4. 39 (22%) were node positive, 96% high ER+ve, 4% Her2+ve. 10 patients received neo-adjuvant endocrine therapy and have since undergone surgery. Of those on PET who have reached 6+ months treatment ($n = 142$), 137 have derived clinical benefit (objective response $n = 96$, static disease $n = 41$), duration of response 6 months - 16 years. Only 5 (3.5%) were *de novo* progressors. 39 (27%) have subsequently progressed (time to progression 8 months – 10 years, median 24 months). 40 patients have received 2nd line PET, 10 3rd line and 1 4th line, 9 with palliative radiotherapy. Four underwent surgery. **Discussion:** The EC has been a success with high patient satisfaction, has improved the patient pathway and has demonstrated that with consistent monitoring this group of older women with ER +ve breast cancer can be maintained on PET for long periods of time.

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

P6. Management of older patients with breast cancer treated with primary endocrine therapy. The Derby breast unit experience/approach

J York¹, A Kayani¹, V Bhanot¹, KL Cheung² & Y Wahedna¹

¹Breast Unit, Royal Derby Hospital and ²School of Medicine, University of Nottingham, Royal Derby Hospital centre, Derby, UK

Background: Older patients with oestrogen receptor positive breast cancer who are not fit for or choose not to have surgery can be treated with primary endocrine treatment (PET). There is limited evidence available for managing older breast cancer patients treated this way. In Derby we have a dedicated one-stop, patient-centred clinic providing individual care plans. **Method:** A multidisciplinary and patient-centred approach is used to ensure correct management for these patients. The patients are given the choice of PET or surgery. If the patient chooses surgery the patient will be sent for preoperative/anaesthetic assessment. Patients who commence PET are given an appointment to attend the dedicated clinic in 3 months from commencement of PET. Patients are seen by a surgeon, radiologist/consultant radiographer and breast care nurse to assess clinical and radiological, usually by ultrasound and mammography if required, response to treatment. Subsequent appointments are determined by the patient's response to the treatment. The patients can bring their appointment forward at any time if they have any concerns. Patients who progress on PET will be re-assessed. The patients are again given the choice of surgery, with other options (change of PET or radiotherapy) available as appropriate. If for surgery, the patient will be sent for preoperative/anaesthetic assessment for suitability. **Results:** Between 01/01/17–31/12/17 573 patients were diagnosed with breast cancer in our unit. Of these, 159 were over 70. 62 patients had primary endocrine treatment. 42 patients attended the one-stop clinic. 20 patients did not attend due to their co-morbidities. **Discussion:** A dedicated one-stop clinic provides a patient-centred approach to managing elderly patients treated with primary endocrine therapy.

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

P7. Oncoplastic breast surgery in elderly primary breast cancer: time to serve more surgically?

E Garreffa, J Rowley & A Agrawal

Cambridge Breast Unit, Cambridge University Hospitals, Cambridge, CB22 7AD

Introduction: Oncoplastic breast surgery (OBS) is associated with less re-operations due to inherent larger radial excisions including in larger cancers and yet maintain/improve breast aesthetics during breast conserving surgery (BCS). We explore utility of OBS in the over-70s in a well-established surgical practice. **Methods:** A retrospective review of available data in all BCS under the care of a single oncoplastic surgeon in a UK university teaching hospital was performed. Patients aged 70+ years were compared with the rest of the cohort with essential NPI and operative variables as in the table. **Results:** 325 women (328 breasts) underwent BCS (1 mm margin for both invasive and non-invasive tumours) under the senior author's care. Of 60 patients with OBS, only one woman was 70+.

	n	Age (mean)	Tsize (mm)	Grade 3 (%)	N+ (%)	Re-exc. (%)	Mx (%)	NACT (%)	Adj. CT (%)
All WLEs	265	60.26 ^a (29–88)	18.58 ^b (0–92)	24.15	12.07	16.6	6.41	11.42	22.26
WLE <70	214	56.50 ^a (29–69)	17.50 ^b (0–92)	22.89	12.14	19.1	6.54	13.55	25.23
WLE 70+	51	75.94 (70–88)	22.95 ^b (1–60)	29.4	11.76	5.77	5.77	1.96 ^c	9.8 ^c
OBS	60(63)	55.82 ^a (29–80)	30.14 ^b (0–86)	30.1	28.5	7.93	3.17	20	31.6

(a: ANOVA $p < 0.0001$; b: ANOVA & t-test $p < 0.05$; c: χ^2 test $p < 0.05$; N = Node

Conclusions: In fit/operable 70+, despite greater cancer size, OBS was minimal, likely due to multi-factorial reasons: non-indication, performance status, patient preference, or team/MDT's subconscious age-bias or conscious

assumptions against qualitative escalated surgery ($n = 1/52$, 1.9%) whilst ironically, more ($1.96 + 9.8 = 11.76\%$) were fit for chemotherapy. The average resection weight was higher (41.11 g in >70 vs. 35.65 g in <70 ; $P = 0.12$) perhaps to minimise re-operation though pre-disposing to body-image loss at an age when oncological treatment may only add lesser years than <70 . OBS-related benefits vis-a-vis risks related to a 30–60 minutes longer operating time (110.5 min, i.q.r: 90–150; UK mammaplasty-TeAM study), would need to be weighed against peri-operative risks (as during systemic chemotherapy).

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

P8. Does age influence day surgery rates in patients undergoing breast cancer surgery?

H Capitelli-McMahon¹, J Aldoori (MRCS)¹, C Brennan¹, E Baker (FRCS)¹ C Murphy (FRCS)¹

Department of Breast Surgery, Airedale General Hospital, Skipton Road, Keighley, West Yorkshire, BD20 6TD, UK

Background: The British Association of Day Surgery (BADs) Procedure Directory¹ describes national performance targets for day case breast surgery procedures. This study aimed to assess whether patients aged over 70 required overnight admission more frequently than younger patients having the same procedure. **Methods:** Retrospective audit of elective breast surgery operations over a 6-month period. Procedures with a corresponding BADs code were identified: (1) simple mastectomy with axillary surgery, (2) simple mastectomy without axillary surgery, (3) excision of breast with sentinel lymph node biopsy (SLNB) or axillary node clearance (ANC), (4) SLNB or ANC, and (5) wide local excision (WLE) of breast including wire-guided. Comparison in length of stay of those over 70 and under 70 was made. **Results:** 117 patients were identified, 82 (70%) were under 70, 35 (30%) were over 70. Ten were excluded due to lack of data. Of the 107 patients remaining, those aged over 70 had high rates of same-day discharge, falling in the top 5% of current national performance² across all procedures included. 93.7% of patients over 70 having 'excision of breast with SLNB or ANC' were discharged the same day. This falls slightly below the 95% target but is significantly better than the younger group having the same operation (80%). In all other procedure categories, both patient groups met or exceeded BADs targets. **Discussion:** This study found that patients over 70 can successfully undergo day-case surgery in line with national targets. Where patients stayed overnight, this correlated with later operating times which could be addressed to improve day case rates even further. In the 6-month period covered there were no readmissions in the week following surgery suggesting that day case surgery was both safe and effective. Therefore age should not be a barrier to breast surgery day-case management.

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.

P9. Uncharted waters – nurse practitioners take the helm of the primary endocrine clinic

Lisa Sawers, Ellie Gutteridge, Susie Laking & Linda Winterbottom

Nottingham Breast Institute, UK

Background: The Nottingham Breast Institute operates a dedicated clinic managing patients who are not amenable to surgery or have chosen to be treated with primary endocrine therapy (PET). This clinic was traditionally led by Consultants with Registrar support. Increasing workload of Consultants, clinic cancellations, inconsistent management and documentation of response prompted a review of how this clinic was conducted to explore whether this could become nurse led. **Methods:** Nurse Practitioners were trained to assess and measure response to PET. New, more robust guidelines were drafted. Clinic proformas and letter templates were created. After a year of joint working, the clinic became solely nurse led in April 2017. To ensure Consultant involvement continued any changes due to progression are put through an MDT. **Results:** The management and measurement of response became more consistent with improved continuity of care. The clinic was moved to a morning session, reducing transport issues in the elderly patients. Patient feedback has been positive. There have been no clinic cancellations

and there is a preference for the morning session. A potential negative has been that as there is not a Consultant in the clinic, decisions regarding change of management are discussed at a later date, and on occasion this necessitates an additional visit to the unit. **Discussion:** Despite the occasional delay in managing a change in patients care, the overall transition to nurse-led assessment in the PET clinic has been positive. This has freed up time for the Consultants to complete more specialised work and has improved consistency and continuity. Nurse led clinics, properly planned and managed with robust guidelines and support in place, are a safe and cost effective alternative to the traditional Consultant-led setting.

Financial & competing interests disclosure

The author has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties. No writing assistance was utilized in the production of this manuscript.