7 Minute Presentation & 3 Minute Discussion

1. **9.00** The greater the risk the greater the reward? Development, implementation and evaluation of an elevated breast cancer risk surveillance programme
   **David Cagney**, Breeda Donovan, Peter O’Leary, Hamid Mustaf, Nina Marshall, Mark Corrigan
   ¹Department of Surgery, Cork University Hospital, Wilton, Cork, Ireland
   ²Department of Radiology, Cork University Hospital, Wilton, Cork, Ireland

2. **9.10** Urgent referrals to symptomatic breast clinics from primary care; Diagnostic yield and referral patterns
   **Ahmed Al-Maksoud**, Thomas Cahill, Aidan Manning, Gerry O’Donoughue
   Department of Surgery, University Hospital Waterford, Dunmore Road, Waterford, Ireland

3. **9.20** 5 year outcomes for triple negative breast cancer: A single centre experience
   **Robert Doyle**, Robert Michael O Connell, Shona Tormey
   Department of Surgery (Breast), University Hospital Limerick, St Nessan’s Road, Dooradoyle, Limerick, V94 YVH0, Ireland

4. **9.30** Yield from systemic staging of breast cancer patients following a positive sentinel node biopsy
   **Patrick O’Donoghue**, Damian McCartan, Ruth Prichard, James Geraghty, Denis Evoy, Jane Rothwell, Caroline Herron, Helen Earley, Shiva Sharma, Andy Gervescu, Enda McDermott
   ¹Department of Surgery, St. Vincent’s Hospital, Elm Park, Dublin 4, Ireland
   ²Department of Surgery, University College Dublin, Stillorgan Road, Dublin 4, Ireland

5. **9.40** Benign intraductal papillomas: Is conservative management an option?
   **Alice Moynihan**, Edel Quinn, Claire Smith, Maurice Stokes
   Malcolm Kell, John Barry, Siun Walsh
   Department of Breast Surgery, Breast Health Unit, Mater Misericordia University Hospital, Eccles Street, Dublin 7, Ireland

6. **9.50** Impact of progesterone receptor status on oncological outcomes in oestrogen receptor positive breast cancer patients – a systematic review and meta-analysis
   **Éanna Ryan**, Michael Boland, Emma Dunne, Nikita Bhatt, Aoife Lowery
   ¹Department of Surgery, Royal College of Surgeons in Ireland, Dublin, Ireland
   ²Discipline of Surgery, Lambe Institute for Translational Research, National University of Ireland, Galway
7. **10.00** Timing of low molecular weight heparin administration in breast surgery and post-operative haematoma formation  
**Anna Christina Fullard**, Ms Helen Earley, Aoife Lowery, Ashish Lal, Anne Merrigan, Shona Tormey  
Department of Breast Surgery, University Hospital Limerick, St Nessen’s Road, Dooradoyle, Limerick, V94 YVH0, Ireland

8. **10.10** Prevalence of sarcopenia and its impact on survival in breast cancer – A systematic review and meta-analysis  
**Lydia Olive Simmons¹**, David Cagney¹, Farrah Hassan¹, Jia Ying Lim², Donal Peter O’Leary¹, Aaron Liew¹, Henry Paul Redmond¹, Mark Corrigan¹, Martin O’Sullivan¹, Louise Kelly¹  
¹Department of Surgery, Cork University Hospital, Wilton, Cork, Ireland  
²School of Medicine, University College Cork, College Road, Cork, Ireland

9. **10.20** The incidence of breast carcinoma recurrence post breast conserving surgery  
**Tim Harding¹**, Helen Earley¹, Shiva Sharma¹, Damian McCartan¹,²,³, Ruth Prichard, Denis Evoy¹,²,³, James Geraghty¹,²,³, Enda McDermott¹,²,³  
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²Department of Breast, St. Vincent’s University Hospital, Elm Park, Dublin 4, Ireland  
³Department of Endocrine Surgery, St. Vincent’s University Hospital, Elm Park, Dublin 4, Ireland

10. **10.30** Prophylactic negative pressure wound therapy for closed incisions in breast surgery – A systematic review & meta-analysis  
**David Cagney¹**, Lydia Simmons¹, Donal Peter O’Leary¹, Aaron Liew², Mark Corrigan¹, Louise Kelly¹, Martin O’Sullivan¹, Henry Paul Redmond¹  
¹Department of Surgery, Cork University Hospital, Wilton, Cork, Ireland  
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11. **10.40** Axillary complete pathological response to neo-adjuvant chemotherapy in breast cancer, can we predict it?  
**Ghassan Elamin¹**, Dimple Sapre², Wajiha Tehniyat¹, Ali Jahan¹, Mahmoud Dakka³  
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AB013. 221. The greater the risk the greater the reward?—development, implementation and evaluation of an elevated breast cancer risk surveillance programme

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¹Department of Surgery, ²Department of Radiology, Cork University Hospital, Wilton, Cork, Ireland

Background: Women under 50 account for 25% of breast cancer (BC). Currently, there exists no national surveillance programme to screen women who are at an elevated risk of BC.

Methods: A programme was established to evaluate risk in women attending the Cork BC centre offering surveillance to those identified as elevated risk as per the National Institute for Clinical Excellence (NICE) criteria. International measures of screening performance were applied, data collated and analysed from 2013–2018.

Results: A total of 17,838 individual risk assessments were performed during the study period of which 538 women were recruited to the moderate and 153 to the high-risk screening programmes. For the purpose of this study, known genetic carriers were excluded from these categories at recruitment. Attendance was 96% for the 1,546 invitations issued. A total of 18 cancers were identified (15 invasive) giving an overall detection rate of 12 cancers per thousand mammograms performed. The detection rate for BreastCheck in 2017 was 6.8 cancers per 1,000 mammograms. Specifically, the projected detection rate in the high-risk group was 19.6 and moderate group 10 per 1,000 mammograms. Benign radiological recall rate was 9% compared to the BreastCheck rate of 4%. Of the cancers identified in those screened women under 50, 70% were T1 and N0. In matched women diagnosed through the traditional symptomatic programme, 70% were N1.

Conclusions: A targeted surveillance programme directed at women with an elevated risk of BC has high compliance and identifies BC earlier than that diagnosed through the symptomatic service. Identification rates compare favourably with the national screening programme.

Keywords: Breast cancer (BC); screening; surveillance

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AB014. 229. Urgent referrals to symptomatic breast clinics from primary care; diagnostic yield and referral patterns

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Background: The number of GP referrals to the 8 symptomatic breast disease (SBD) units has significantly increased nationally without a corresponding increase in breast cancer cases. The aim of this study is to assess the diagnostic yield of urgent referrals to symptomatic breast clinic (SBC) at University Hospital Waterford (UHW) and the main factors affecting the GP urgent referral patterns.

Methods: A retrospective audit is performed to assess the outcome of the urgent referrals to the breast clinic. Breast service database is used to identify all the urgent referrals seen at the breast clinic between Jan–Dec 2017 by our 3 consultants. An online survey on SurveyMonkey was forwarded to all GPs in South East via email to assess the GPs referral patterns.

Results: A total of 1,605 urgent referrals were seen in the breast clinic at UHW during the study period, representing 58.6% of total referrals. The data collection is in progress. Preliminary results for 505 patients showed 58 cases (11.5%) diagnosed with cancer. Seven hundred and fifty-nine radiological imaging was performed (average 1.5 per patient). Forty-two biopsies were performed for benign lesions. The GP responses are being collected to be analysed.

Conclusions: Our preliminary results reflect a low diagnostic yield for urgent referrals to symptomatic breast clinic at UHW. The referral pathway to a symptomatic breast clinic is a complex interaction of clinical and non-clinical factors. The data from our survey will demonstrate any GP factors affecting the decision-making. The current study would yield valuable information about the referral patterns and eventual outcome for 1,605 patients referred urgently to the breast clinic at UHW during the specified period.

Keywords: Breast clinic, breast cancer, urgent referrals

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AB015. 100. Five-year outcomes for triple negative breast cancer: a single centre experience

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Background: Triple-negative breast cancer (TNBC) represents an aggressive type of breast cancer, with poor outcomes and high risk of recurrence. The aim of this was to determine the rate of local recurrence and overall mortality in those identified with TNBC.

Methods: A database of all patients diagnosed with breast cancer is prospectively maintained in our unit. Using this, all women diagnosed with TNBC between January 2012 and December 2014 were identified and included. Exclusion criteria included those with recurrence of a previous breast cancer, patients who were partially managed outside of our institution, and male patients.

Results: Fifty-eight patients were triple-negative (10.6%), of which 20 were node positive and 1 was metastatic at time of presentation. Fifty-three went on to have surgery (27 wide-local-excision, 26 mastectomy). Twenty-eight had neo-adjuvant chemotherapy whilst 22 had adjuvant chemotherapy. Four had neo-adjuvant radiotherapy compared with 44 adjuvants. Five were identified with local recurrence showing metastatic disease, with 11 metastatic in total; mean time to metastasis was 17.3 months from first presentation (range, 0–55 months). The mean length of follow up was 48.9 months (range, 1–82 months). Seven patients (12%) were confirmed to have died during follow up; mean age at death was 62 years (range, 23–82 years). Mean time to death was 29.29 months (range, 7–63 months).

Conclusions: These results compare with national and international morbidity and mortality rates, highlighting the aggressive nature of TNBC.

Keywords: Morbidity; mortality; triple-negative; breast; cancer

doi: 10.21037/map.2019.AB015

AB016. 114. Yield from systemic staging of breast cancer patients following a positive sentinel node biopsy

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Background: The prognostic significance of axillary lymph node metastases in patients with breast cancer has long been established. Despite advances in the molecular profiling of breast cancers, nodal status remains an important determinant of treatment. The aim of this study was to identify the diagnostic yield from staging CT of the thorax, abdomen and pelvis (CT-TAP) prompted by the finding of axillary nodal metastases on sentinel lymph node biopsy (SLNB).

Methods: A retrospective review over a 5-year period from 2013 to 2017 was performed to identify patients with a positive SLNB who proceeded to undergo a staging CT-TAP, based on multidisciplinary team (MDT) recommendation. Findings on CT were recorded from radiology records and correlated with final pathological stage.

Results: In the 5-year study period, 255 patients were included who underwent staging CT-TAP following a positive SLNB. A total of 72 patients had a final pathological nodal status of micro-metastatic disease (pN1mi). None of these patients were shown to have distant metastatic disease on CT. Two patients had incidental findings of synchronous primary tumours. In contrast, the rate of incidental findings requiring additional surveillance was considerable. A total of 32 of the patients with pN1mi (44%) had incidental lung nodules, the majority of which require follow up. In patients with ≥ pN1 disease, distant metastases were identified in 2 patients.

Conclusions: The yield from systemic staging CT-TAP in patients with low volume axillary nodal metastases is low, especially for micro-metastatic disease and comes at a high opportunity cost, based on the need for surveillance of incidental findings.

Keywords: Sentinel node biopsy; staging CT; micro-metastatic; macro-metastatic

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AB017. 118. Benign intraductal papillomas: is conservative management an option?

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Background: In many centres internationally, current standard of care is to excise all papillomas of the breast despite recently reported low rates of upgrade to malignancy on final excision. The objective of this study was to determine the upgrade rate to malignancy in patients with papilloma without atypia.

Methods: A retrospective review of a prospectively maintained database of all cases of benign intraductal papilloma in a tertiary referral symptomatic breast unit was performed. Patients with evidence of malignancy or atypia on core biopsy and those with a history of breast cancer or genetic mutations predisposing to breast cancer were excluded.

Results: One hundred and seventy-three cases of benign papilloma diagnosed on core biopsy were identified. Following exclusions, the final cohort comprised of 138 patients. Mean age at presentation was 51. The most common symptom was a lump (40.58%). Of the 114 patients who underwent excision, 1 had invasive ductal carcinoma and 3 had ductal carcinoma in situ, giving an upgrade rate of 3.51%. Upgrade to other high-risk lesions (atypical lobular, ductal hyperplasia and lobular carcinoma in situ) was demonstrated in 12.28%. Benign papilloma was confirmed in 96 only and 6 had no residual papilloma was found on final excision. Of those managed conservatively, 1 developed malignancy.

Conclusions: Patients with a diagnosis of benign papilloma without atypia on core biopsy have a low risk of upgrade to malignancy on final pathology, suggesting that observation may be a safe alternative to surgical excision. Further research is warranted to study the natural history of these lesions.

Keywords: Benign; breast; intraductal; papilloma

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AB018. 146. Impact of progesterone receptor status on oncological outcomes in oestrogen receptor positive breast cancer patients—a systematic review and meta-analysis

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Background: Assessment of estrogen (ER) and progesterone receptor (PR) status provides important prognostic information in breast cancer. The impact PR status in isolation is less well defined. The standardisation of immunohistochemical assays has reduced discrepancy in studies assessing the prognostic effect of PR status. A systematic review/meta-analysis was undertaken to assess the impact of negative progesterone receptor (PR−) status on outcomes in estrogen receptor positive (ER+) breast cancer.

Methods: The study was performed according to preferred reporting items for systematic reviews and meta-analyses (PRISMA) guidelines. Studies comparing disease-free survival (DFS) as the primary outcome and overall survival (OS) as the secondary outcome between PR+ and PR− status in ER+ breast cancer were identified. A meta-analysis of time-to-effect measures from each of the eligible studies, specifically hazard ratios (HRs), was performed.

Results: Seven studies including 10,613 patients in the ER+PR+ group and 2,371 patients in the ER+PR− group met the inclusion criteria. Treatment characteristics did not differ significantly between the two groups. Patients in the ER+PR− group had a higher risk of disease recurrence over the study time period than those who had ER+PR+ disease [DFS HR 1.57; 95% confidence interval (CI): 1.30–1.80; P<0.01] and this effect was increased in patients who were HER2 negative (DFS HR 1.63; 95% CI, 1.34–1.98; P<0.01). A similar result was observed for OS (OS HR 1.60; 95% CI, 1.19–2.14, P<0.01).

Conclusions: PR− status is associated with a significant reduction in DFS and OS in ER+ disease. This may have implications for treatment and surveillance strategies in this cohort of patients.

Keywords: Breast; cancer; hormone; progesterone; survival

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AB019. 149. Timing of low molecular weight heparin administration in breast surgery and post-operative haematoma formation

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Background: In 2016 the American Society of Breast Surgeons generated thromboprophylaxis guidelines for breast surgery patients. There continues to be a paucity of guidelines pertaining to the optimum timing of venous thromboembolism (VTE) prophylaxis administration. Some studies have found enoxaparin to not increase haematoma rates (Pannucci et al., 2012) but others show contradictory increased risk (Lapid et al., 2012). Thus, further research is warranted to determine if pre- or post-operative administration of VTE prophylaxis effects post-operative haematoma rates.

Methods: A cohort sample of 100 patients who underwent elective breast surgery in University Hospital Limerick in 2017 was identified retrospectively by analysis of theatre lists and chart reviews. Data on: timing of enoxaparin administration, incidence of post-operative haematoma and patient demographic factors [age, body mass index (BMI), smoking status, anti-coagulant use] were collected. Statistical analysis was then performed to determine if a correlation existed between timing of enoxaparin administration or patient related factors and haematoma formation.

Results: Of 100 patients, 73% (n=73) received thromboprophylaxis in the form of enoxaparin, 27% received none. Of the thromboprophylaxis group, 42% received enoxaparin pre-operatively and 31% post-operatively. Incidence of post-operative haematoma was 4% (n=4). Of the haematoma group, 75% (n=3) received post-operative enoxaparin (P=0.16). Independent patient factors did not significantly impact rate of haematoma formation.

Conclusions: Timing of enoxaparin administration in patients undergoing elective breast surgery is varied at our institution. Post-operative haematoma rate is 4% and is potentially associated with post-operative enoxaparin administration. Age, BMI, smoking status and anticoagulation use did not correlate with haematoma formation in our cohort.

Keywords: Breast surgery; enoxaparin; haematoma; low molecular weight heparin; timing; thromboprophylaxis

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AB020. 183. Prevalence of sarcopenia and its impact on survival in breast cancer—a systematic review and meta-analysis

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Background: Sarcopenia has been associated with chemotherapy toxicity, disease recurrence, and reduced overall survival in many forms of cancer. The prevalence of this condition in breast cancer, as well as its effects on breast cancer outcomes, however, is not well studied. Thus, we aimed to establish the prevalence of sarcopenia in breast cancer patients and investigate its effect on overall survival and disease-free survival in female breast cancer patients.

Methods: As per preferred reporting items for systematic reviews and meta-analyses (PRISMA) guidelines, we conducted a systematic review of four databases—PubMed, Embase, CINAHL and Cochrane from January 1998 to July 2018 using relevant filters and keywords related to breast cancer, sarcopenia, and prognosis. Relevant outcome was extracted and recorded in a Microsoft Excel spreadsheet.

Results: After screening for eligibility, eight studies were included, comprising of 5,744 patients. Five studies assessing the effect of sarcopenia in patients with non-metastatic disease, two in patients with metastatic disease and one in palliative patients. The overall prevalence of sarcopenia amongst breast cancer patients (n=2,178) is 37.6%. The prevalence amongst non-metastatic cancer patients is 36.3% and amongst metastatic patients is 55.1%. Sarcopenia had an overall negative effect on both overall survival in both patient groups and disease-free survival.

Conclusions: The results of our study suggest that prevalence of sarcopenia amongst breast cancer patients is substantial and adversely affects survival. Reduced muscle mass can be considered a modifiable risk factor for poor outcomes in these patients and suitable interventions to counteract it may improve survival.

Keywords: Sarcopenia; breast; cancer; survival; prognosis

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AB021. 189. The incidence of breast carcinoma recurrence post breast conserving surgery

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Background: Since the adoption of breast conserving therapy (BCT) in suitable patients with breast cancer, concerns over local recurrence rates have remained. Surveillance of patients following BCT will inherently involve a rate of ipsilateral needle biopsies. The aim of this study is to interrogate the rate and yield of subsequent ipsilateral biopsies in patients post BCT.

Methods: A retrospective analysis was performed of all patients who underwent an ipsilateral core needle biopsy between 2013 and 2017 following prior BCT.

Results: In total 308 patients undergoing surveillance for a past history of breast cancer underwent a core needle biopsy between 2013 and 2017. Of these patients, 200 had BCT with 146 of these biopsies taken from the ipsilateral breast. Forty-eight biopsies confirmed the presence of ipsilateral breast cancer, representing 24% of the original 200 BCT patients. The time from BCT to ipsilateral recurrence was greater than 10 years in just over half the patients (54%) with a mean time of 7 years.

Conclusions: During a 5-year period, 48 patients were diagnosed with an ipsilateral cancer following BCT at our tertiary referral centre. Ensuring that patients discharged from regular follow up at 5 years following initial BCT have access to ongoing mammographic surveillance beyond 5 years remains vital.

Keywords: Breast conserving therapy (BCT); cancer; recurrence; surveillance

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AB022. 205. Prophylactic negative pressure wound therapy for closed incisions in breast surgery—a systematic review & meta-analysis

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Background: Prophylactic negative pressure wound therapy (NPWT) is a promising technology for preventing wound complications in closed surgical incisions. We aimed to evaluate the association of prophylactic NPWT with rates of wound complications for closed incisions in breast surgery and compare them with those of conventional dressings.

Methods: This meta-analysis was conducted according to preferred reporting items for systematic reviews and meta-analyses (PRISMA) guidelines. A systematic search of Medline, Embase, CINAHL and Cochrane Library was undertaken for articles in which prophylactic application of a single use NPWT device was compared with standard dressings for total wound complications, surgical site infection (SSI), seroma, haematoma, wound dehiscence and necrosis.

Results: Seven studies met the inclusion criteria for analysis, reporting on 1,500 breast incisions in 904 patients. On random effects analysis, NPWT was associated with a significantly lower rate of total wound complications [pooled odds ratio (OR), 0.36; 95% CI, 0.19–0.69; P=0.002], SSI (pooled OR, 0.45; 95% CI, 0.24–0.86; P=0.015), seroma (pooled OR, 0.28; 95% CI, 0.13–0.59; P=0.001), wound dehiscence (pooled OR, 0.49; 95% CI, 0.32–0.72; P=0.000) and wound necrosis (pooled OR, 0.38; 95% CI, 0.19–0.78; P=0.008). There was no significant difference in rates of haematoma (pooled OR, 0.8; 95% CI, 0.19–3.2; P=0.75). Significant heterogeneity existed amongst included studies for rates of total wound complications but not for the other endpoints.

Conclusions: Compared with standard dressings, prophylactic application of NPWT significantly reduced the rate of total wound complications, SSI, seroma, wound dehiscence and wound necrosis when applied to closed incisions on the breast.

Keywords: Breast surgery; closed incisions; negative pressure wound therapy (NPWT)

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AB023. 11. Axillary complete pathological response to neo-adjuvant chemotherapy in breast cancer, can we predict it?

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Background: The recommended surgical procedure for the involved lymph nodes (LNs) in breast cancer is axillary nodes dissection (AND), even after pathological complete response (PCR) to neo-adjuvant chemotherapy (NACT). Many trials are studying the benefit of re-staging the axilla post NACT with targeted nodes dissection (TAD) with the assumption that they can represent the whole axillary response, and if they show PCR then those patients can avoid the potentially morbid AND. The TAD technique is showing promising results but still there are significant false negative rates (FNR). In this study our aim is to identify common imaging and/or histopathology characteristics in patients who showed PCR in the axilla. This subgroup if found with predictable axillary PCR can be a target for TAD in future studies with possibly less FNR.

Methods: Retrospective data collected from all patients with axillary metastasis underwent NACT in our institution between 2009 and 2017. Pre and post-surgery imaging and final histopathology characteristics were compared to the axillary response to NACT. Analysis done using R. Citation: R Core Team (in 2018).

Results: We found statistically significant association between PCR in the axilla and HER2+ cancers (P=0.012), absent lympho-vascular invasion (LVI) (P<0.001), and complete main tumour response to NACT (P<0.001). Relation of axillary response to ER, PR, and MRI were statistically insignificant (P=0.120, 0.249, and 0.310).

Conclusions: It is possible to find a subgroup with predictable PCR showing common characteristics like LVI negative, HER2 positive, and main tumour PCR. Findings can help in further prospective studies.

Keywords: Breast cancer; neo-adjuvant; complete response; chemotherapy; prediction; axilla; lymph nodes (LNs)

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