A day in the life of a Histopathologist

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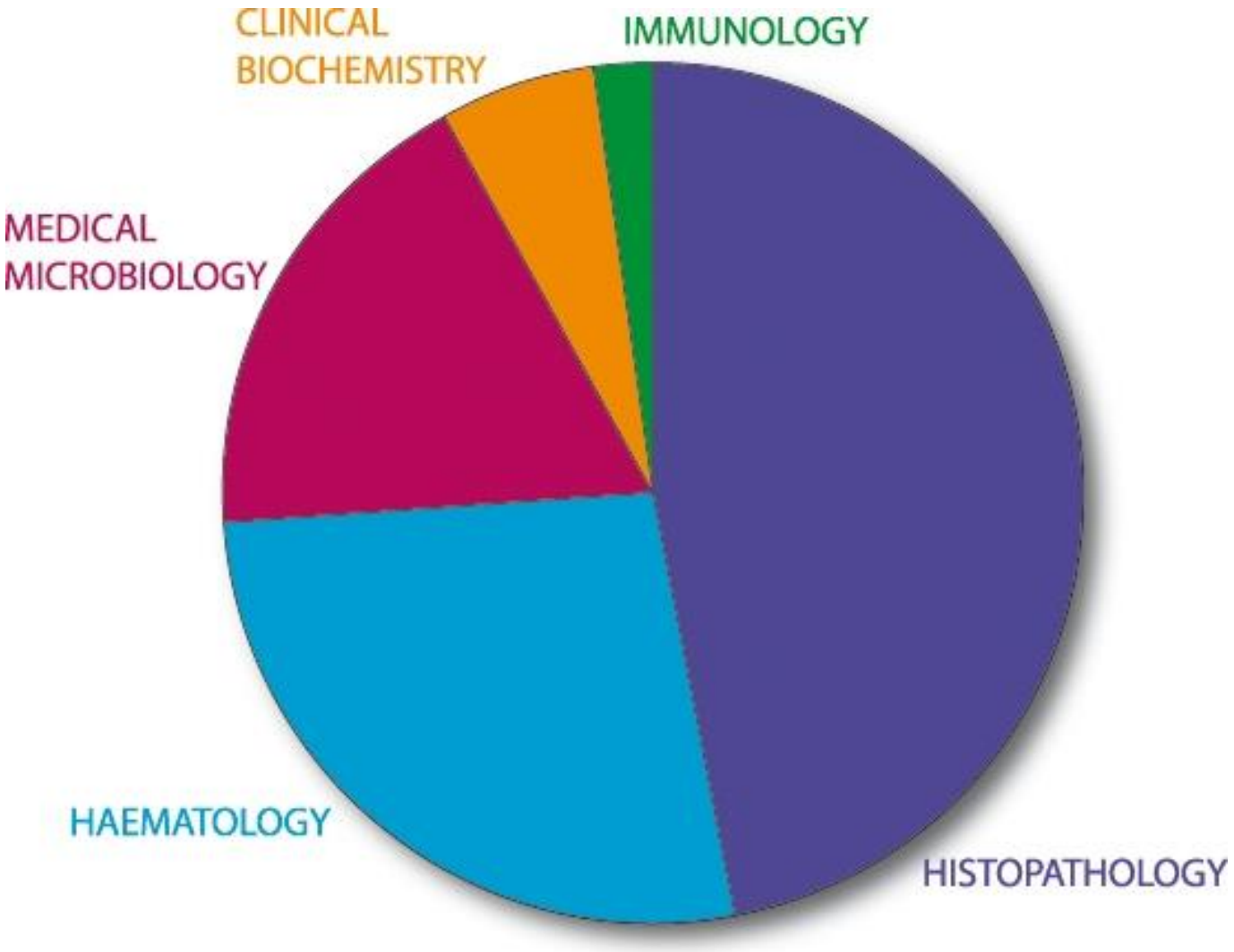
President, BDIAP
Consultant Histopathologist
East Lancs Hospitals NHS Trust

UK pathologists



Aug 1978 - Jan 1979	House Surgeon, Cumberland Infirmary, Carlisle
Feb 1979 - July 1979	House Physician, Freeman Hospital Newcastle-upon-Tyne
Aug 1979 - Jan 1981	SHO in Pathology Rotation Scheme Southampton General Hospital Southampton
Feb 1981 - July 1981	SHO in Obstetrics and Gynaecology Cumberland Infirmary Carlisle
Aug 1981 - Jan 1982	GP Trainee, Brampton Surgery Brampton
Feb 1982 - Dec 1982	Registrar in Pathology Salisbury General Infirmary Salisbury
Dec 1982 - Oct 1986	Senior Registrar in Histopath ology at the Children's Hospital , Sheffield and the Royal Hallam shire Hospital, Sheffield Honorary Clinical Tutor, Sheff ield University
Feb 1985- Jan 1986	Registrar in Paediatric Pathology Royal Children's Hospital Melbourne, Australia Lecturer in the Department of Pathology, University of Melbourne
Nov 1986 - Sept 1989	Senior Lecturer in Histopathology University of Sheffield Honorary Consultant Pathologist Royal Hallamshire Hospital, Sheffield
October 1989 – December 2002	Consultant Histopathologist Royal Preston Hospital , Preston
December 2002 – now	Consultant Histopathologist East Lancs Hospitals NHS Trust

Personal requisites

- Team player
- Sociable & friendly
- ‘Have the eye’
- Meticulous
- Obsessional
- Sense of humour
- Open to criticism…..

Where I work now

- East Lancashire Hospitals NHS Trust in NW England (first ‘e’ in Leeds)
- Semi-rural area with socially deprived towns
- Easy access to National Parks

Trust/hospital

- 560,000 catchment population
- Two main hospitals sixteen miles apart on motorway
- ~1500 beds
- DGH with specialist services

Histopathology

- Surgical Pathology – specimens with gross pathology and looking down microscope
- Cytopathology – cells either brushed/scraped or aspirated (FNA)
- Autopsies – gross and histology
- Specialist areas – Neuropathology, Renal, Ophthalmic, Paediatric, Forensic, Infectious Diseases etc

Team Workload

- ~36k surgical pathology requests
- ~4k non-gynae cytology
- ~1000 autopsies
- Complex cancer work (all hospitals do Lung, Breast, Colorectal)
  - Urology, HBP, H&N – East Lancs
  - Gynae, Urology, UGI, H&N, CNS – Preston (Cancer Centre)
  - Haematolymphoid & Lung – Blackpool
- 11 WTE Consultant

Typical day

- Does not exist!
- 40hr week
  - 32hr doing ‘clinical work’
  - 8hr doing ‘supporting activities’
- Work comes at varying times in varying amounts depending on urgency, complexity etc
- Gross dissection (‘cut-up’), reporting histology & cytology, careful review of cases before authorisation
- Discuss cases with colleagues
- Autopsies (post-mortems)
- Emails, audits, research, teaching, lectures, managerial meetings etc
- Fixed commitment of MDT

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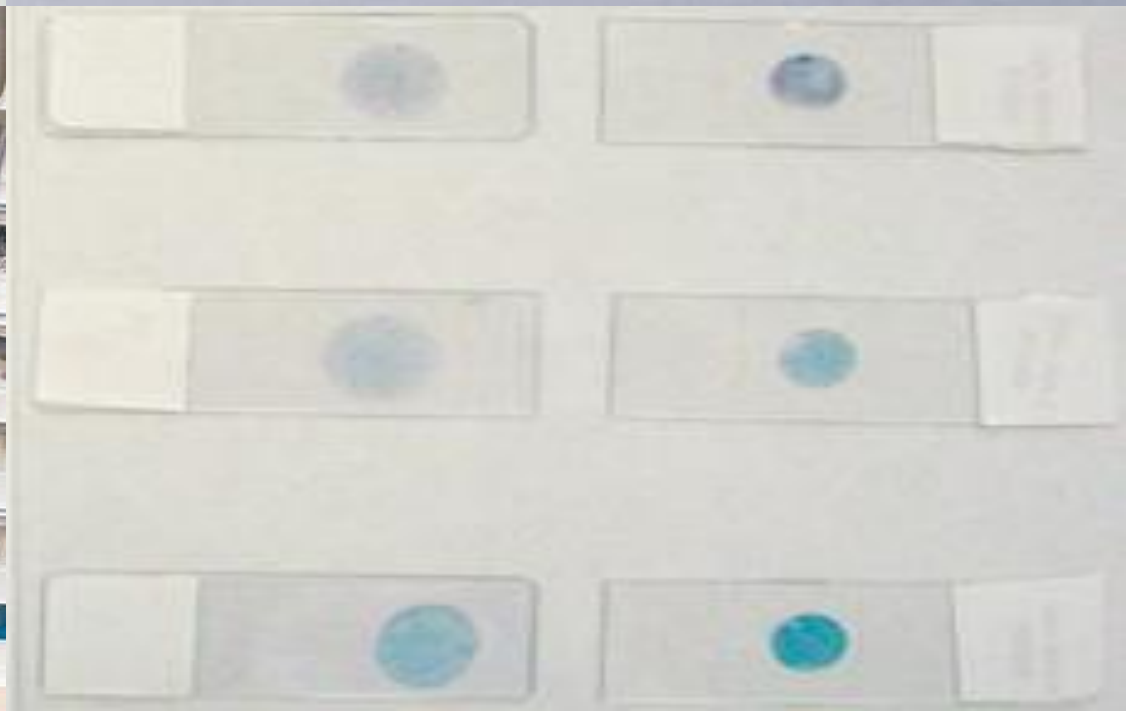
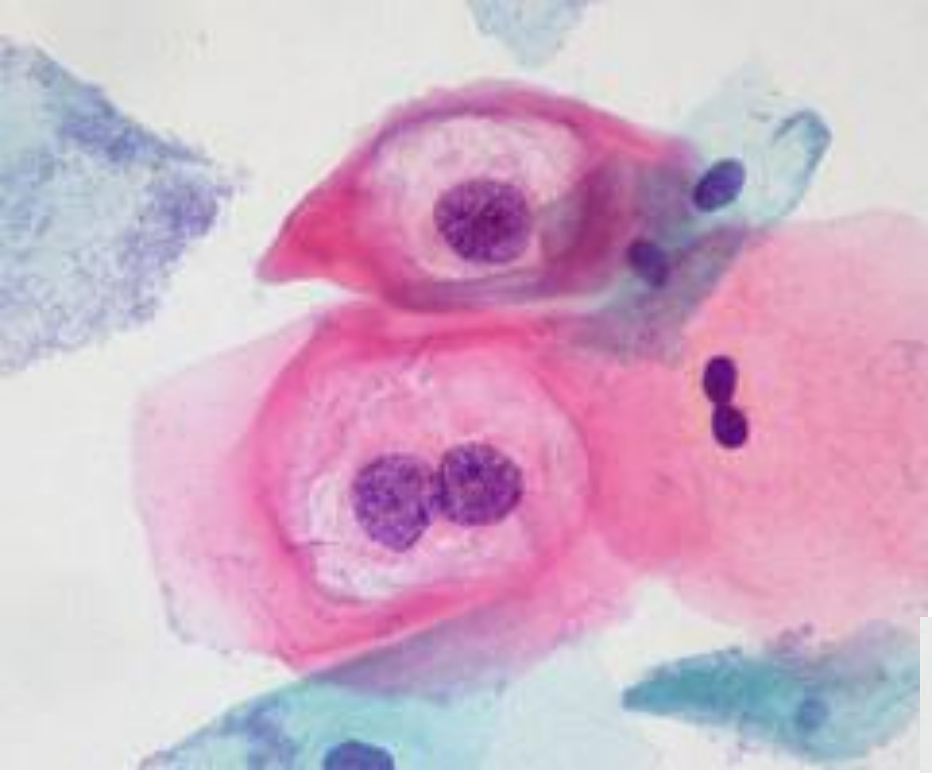
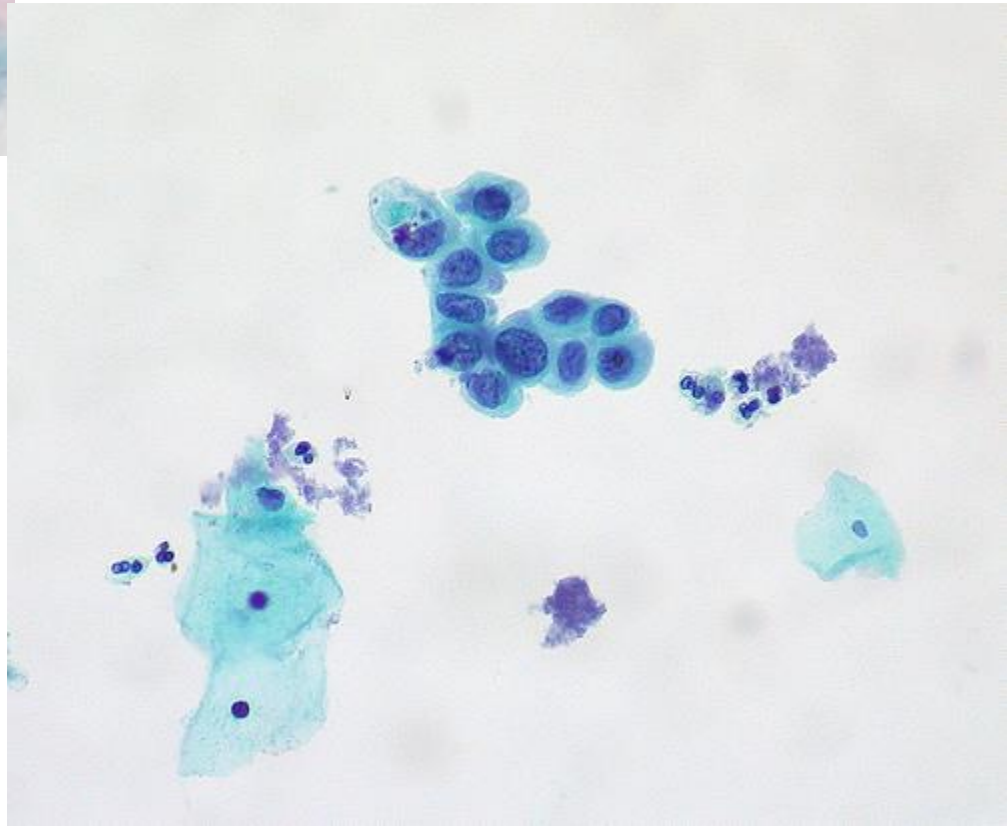




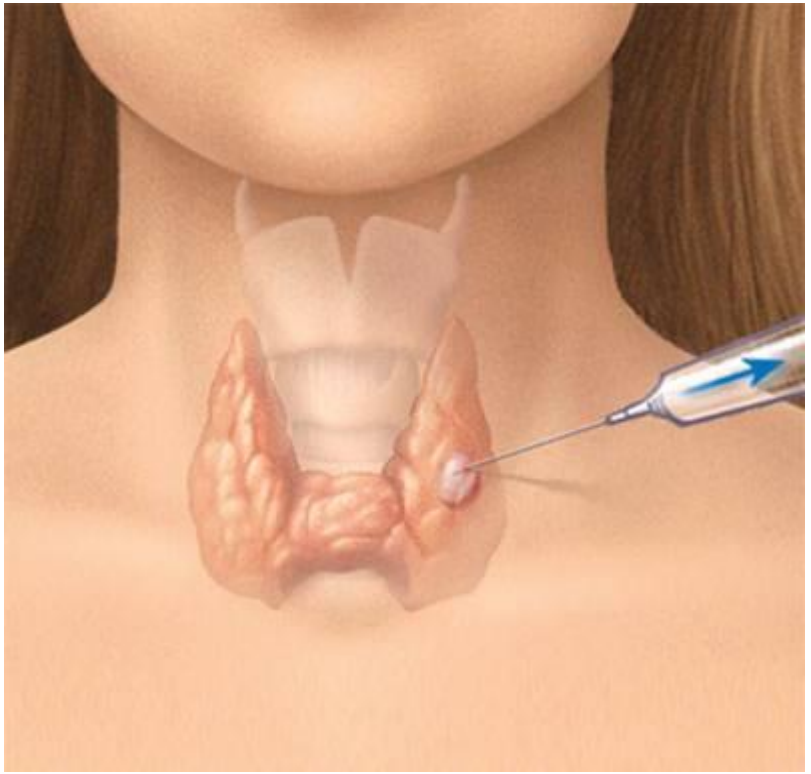


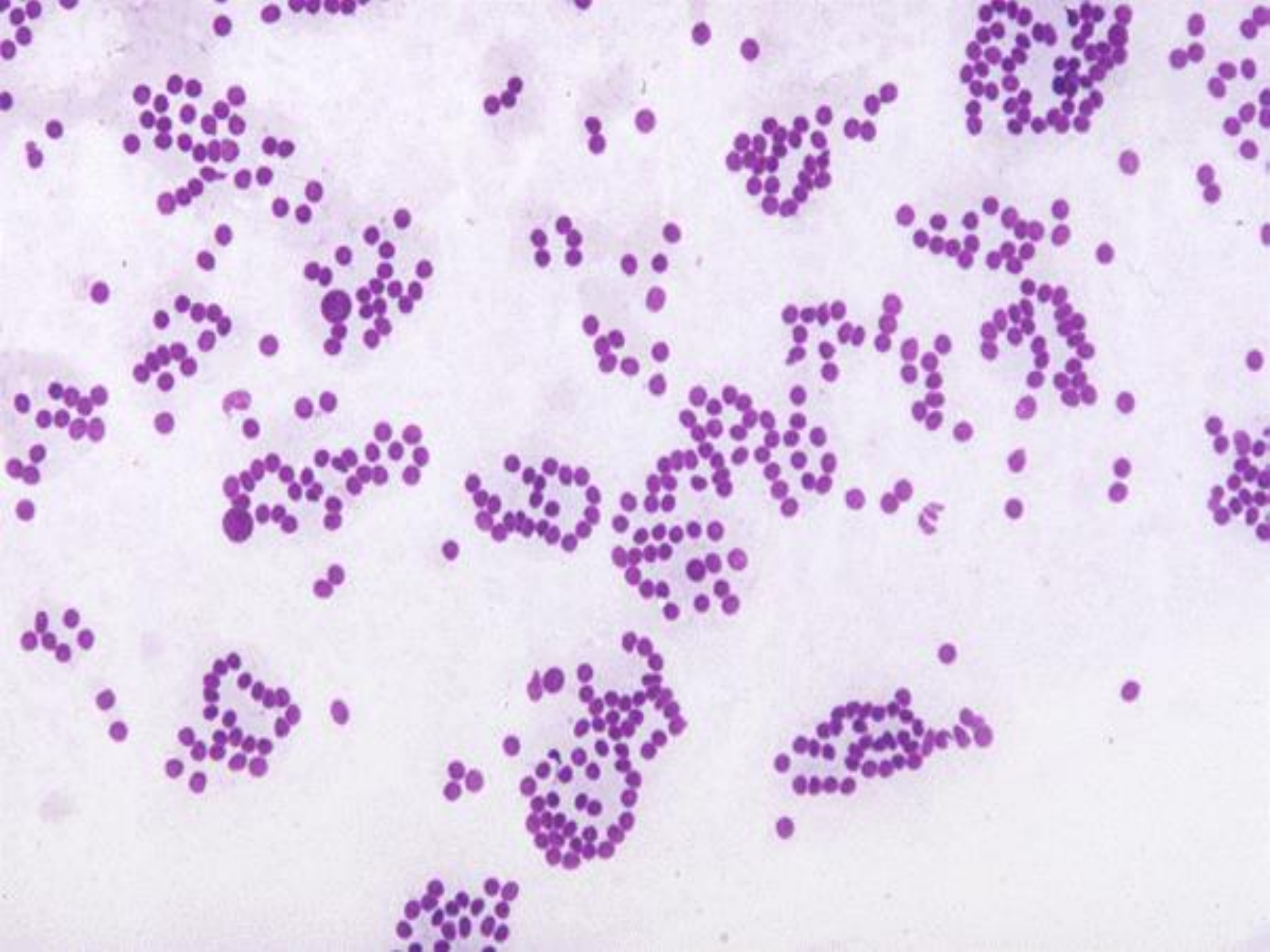
Non-gynae cytology

- Total number:

  About 3000 per year

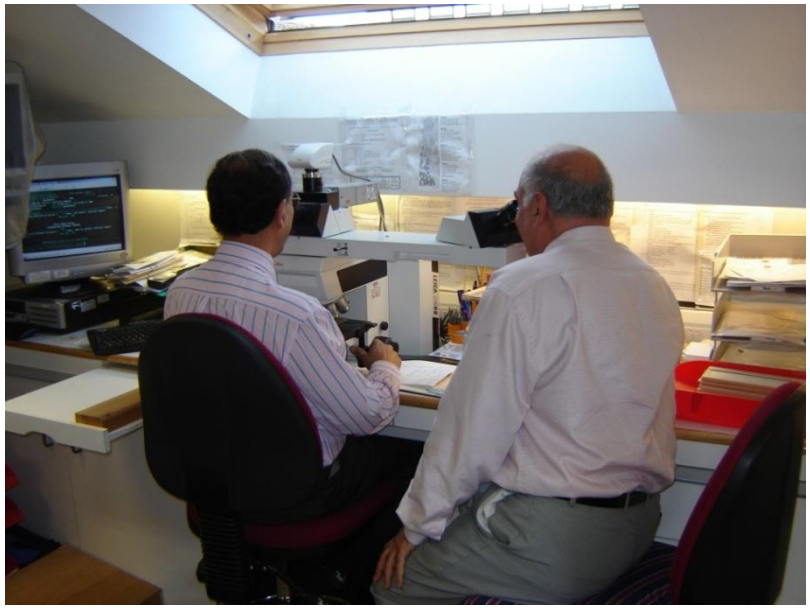
- FNA, brushings, effusion fluids, urine





Internal quality control

- Very important to consult colleagues
- Any primary malignancy, tricky lesion etc
- Any disparity, get tertiary opinion

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Thermo

Autopsies

- Greek – autos & opsomeri meaning ‘to see for oneself’
- Integral part of medicine, education, clinical audit & research
- 45% of deaths reported to Coroner, 41% of which have an autopsy – 20% of all deaths, some 94000 autopsies in England (2013 data)
- Very few ‘hospital’ autopsies

Autopsies at East Lancs

- About 1000 per year mostly coroner PMs

- The cause of death is unknown
- The deceased was not seen by the certifying doctor within 14 days of death
- The death was violent, unnatural or suspicious
- The death may be due to an accident (whenever it occurred)
- The death may be due to self-neglect or neglect by others
- The death may be due to an industrial disease or related to the deceased employment
- The death occurred during an operation or before recovery from the effects of an anaesthetic

Multidisciplinary Team (MDT)

- Every cancer case (except some skin cancers of limited significance) is discussed at an MDT meeting. Also recurrences and complications
- Each Consultant Histopathologist attends at least 1 MDT per week
- I am Lead for Breast but also deputise for Skin, Gynae & Lung
- The Histopathology team ensures all MDTs are covered by a Histopathologist

Breast MDT

- 3-4 Surgeons
- 2-3 Oncologists
- 1-2 Radiologists
- 1 Histopathologist
- Mammographers
- Clinical Nurse Specialists
- MDT co-ordinator
- Others

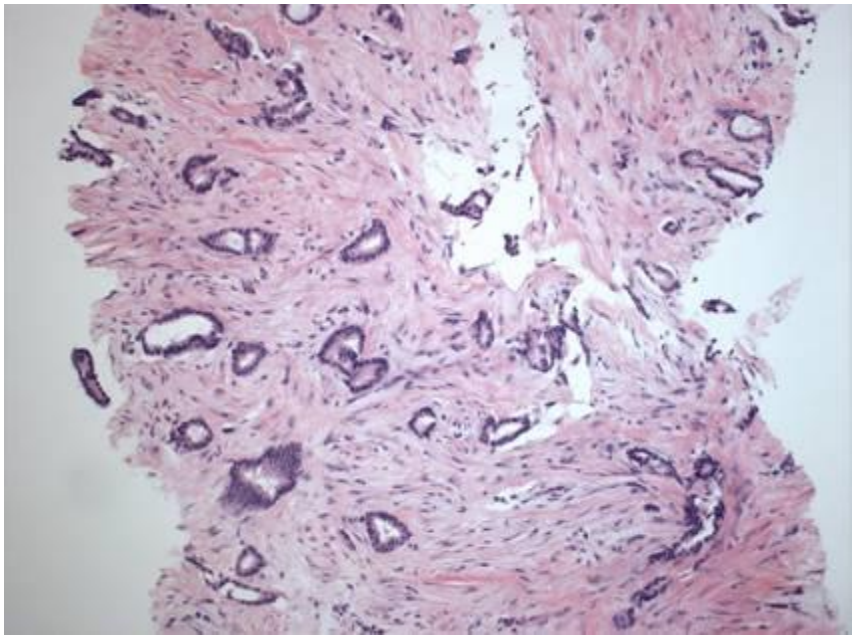
Patient’s questions

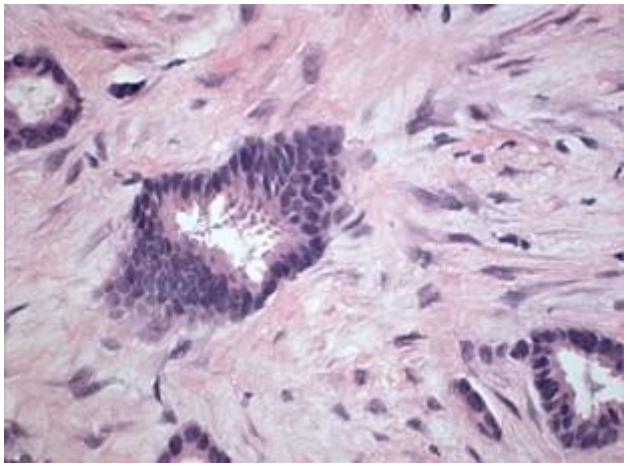
- Is it cancer?
- What surgery do I need?
- How are I going to do?
- What other treatments will I need?

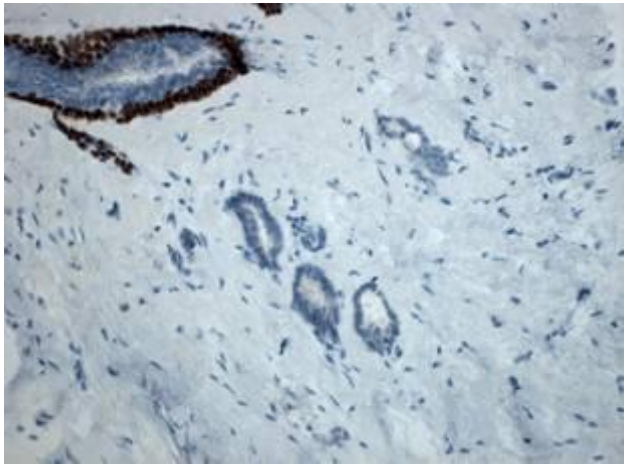
Pre-MDT

- Patient notices breast lump
- Goes to GP and referred urgently
- Seen in one-stop clinic and has clinical exam, mammo +/- ultrasound, +/- core biopsy (CB) of lump
- Axilla also examined by U/S +/- FNA cytology or CB of any worrying Lymph Node
- CB & FNA reported by Histopathologist

Grade 1 ductal carcinoma

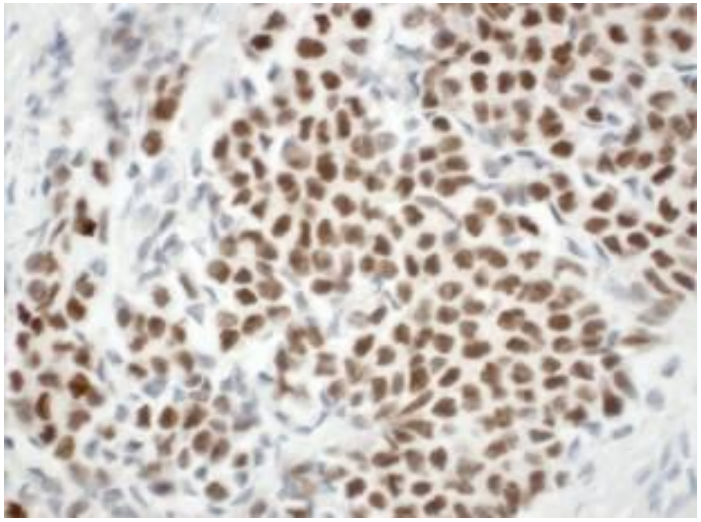


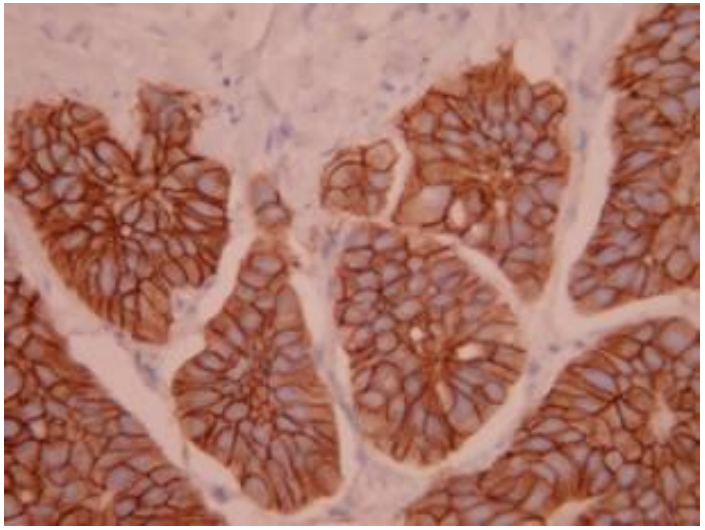




Tumour properties

- ER, PR & Her2
- Predict treatment of tumours ie anti-ER drugs, trastuzamab
- ER scored by % of cells and intensity (0-8, >2 considered ER +ve)
- Triple –ve tumours and tumours that are ER -ve and Her2 +ve do worse

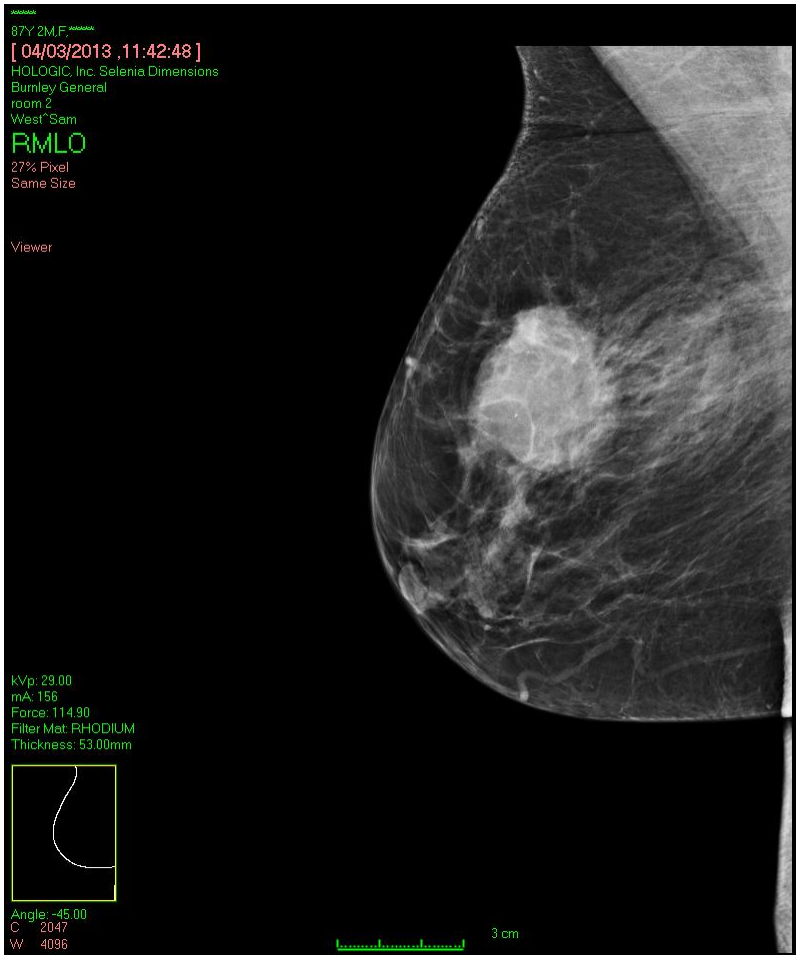


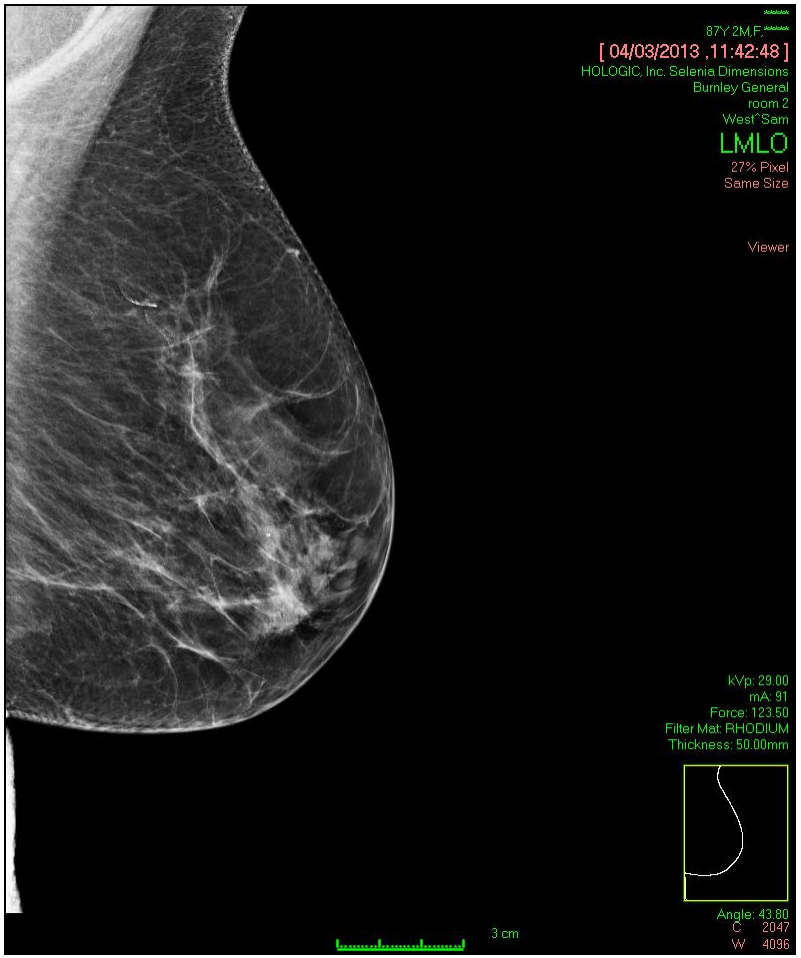


Report at MDT

- “This is an invasive ductal carcinoma of grade 1, ER 8, PR8, Her2 0”
- Imaging also reviewed
- Decision taken on further surgical options depending on patient choice
- This case - Wide Local Excision and Sentinel Node Biopsy

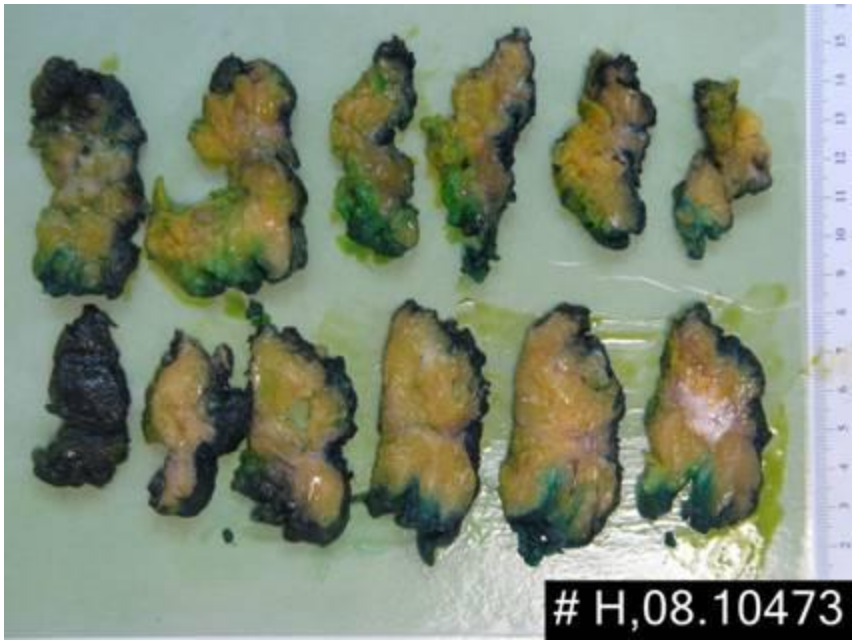
Irregular mass

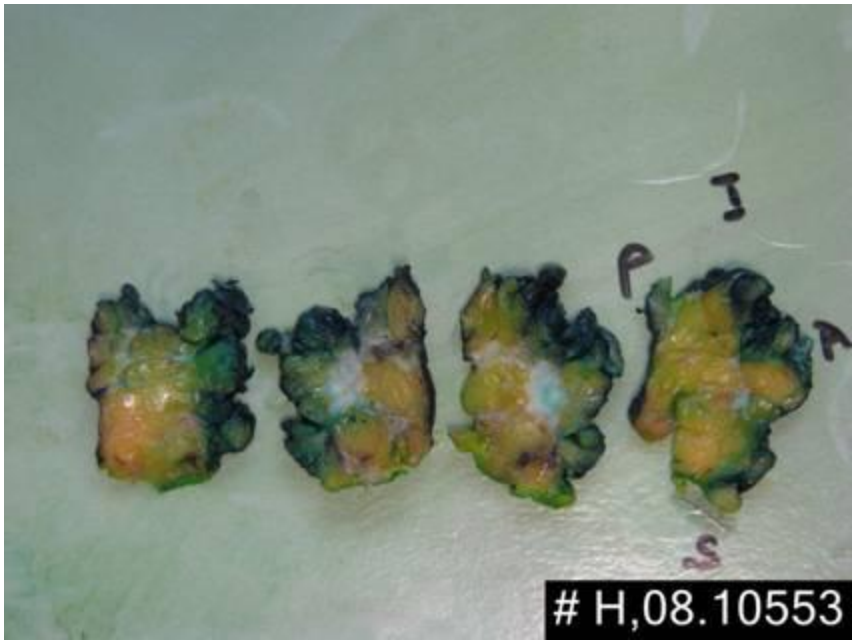




Spiculate mass

Gross dissection





Prognosis

- Tumour characteristics and spread
  - Stage
  - Type of cancer
  - Grade
  - Invasiveness including VI & PNI
- Effectiveness of therapy
  - Tumour biology
  - Sensitivity of tumour to chemo

Nottingham Prognostic Index for breast cancer

- 0.2 x size of tumour in cm
- Grade 1, 2 or 3
- -ve LNs score 1, </=3+ score 2, 4 or >+ score 3
- Add size + grade + LN score = index
- This case NPI = 0.2x1.5 +1 +1 = 2.3

Score	5-year survival
>/=2.0 to </=2.4	93%
>2.4 to </=3.4	85%
>3.4 to </=5.4	70%
>5.4	50%

Post-op MDT

- 15mm IDC G1, fully excised
- SNB 0/2 nodes
- NPI = 2.3 (excellent prognosis)
- pT1c pN0
- Known to be ER & PR +ve
- Further treatment of Hormonal therapy and Radiotherapy to the breast

Patient's questions
Answers

- Is it cancer?
  - Yes
- What surgery do I need?
  - WLE & SNB
- How are I going to do?
  - ~93% 5 YSR
- What other treatments will I need?
  - Hormonal therapy and radiotherapy to breast

Role of Histopathologist in MDT

- Review pathology before meeting
- Any discrepancy - discuss with original colleague
- Issue supplementary reports after
- Independent MDT member with equal opinion
- Ensure best treatment for patients
- “Surgeon is merely the technician between the patient and the Pathologist”

Summary

- There is no typical day which is refreshing
- Work as team both within lab and with clinical colleagues
- Need to be careful and meticulous
- Need to be able to communicate
- Need to have a sense of humour (dealing with surgeons….)
- Truly enjoyable, fascinating and unique career