East of England Cancer Alliance

NHS East Genomics

Cancer Genomics Improvement Programme (CGIP)

November 2025

Turnaround time for Non-Small Cell Lung Cancer Pathways

Dr Emily Scott
Clinical Research Fellow for the East of England Cancer Alliance

Jo Lowry
Regional Programme Manager, East Genomics Medicine Service Alliance

Sarah Miller
Head of informatics and Performance Improvement, East of England Cancer Alliance

IDEAL end-to-end pathway (solid tumours)

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(End-to-end turnaround times)

- Urgent <7 calendar days, for clinically urgent management
- 14 calendar days, for routine diagnosis and genomics to inform first line treatment
- 28 calendar days, for routine diagnosis and genomics to inform subsequent treatment

Sample/report booking in

Potential transport step

Clinical

- Tumour sample taken
- Sample preservation
- Request form

Transport to pathology (ideally same day)

Report received by treating clinical team

Histopathology

PQAD target: 70% within 10 days by 2024

Booking-in (ideally electronic request received)

Fixation – <24 hours biopsies, 48 hours large resections

Processing and embedding; O/N – 96 hours for fatty specimens

Sectioning and autostainer (3 hours)

Histopath diagnosis and reporting, including: tumour content assessment, request for IHC, and reflex genomic tests

IHC (~50% of cases, dependent on tumour type); O/N processing, and analysis

Specialist referral, test request and transport to another Cell Path

+ 2-3 days

Histopath diagnosis and reporting, potentially including: tumour content assessment, request for IHC, and reflex genomic tests

GLH

Booking-in

DNA / RNA extraction (macrodissection if indicated), 2-3 hours

FISH hybridisation

Gene panel analysis 6 days incl data analysis, if gene panel run every day

SGTs (1-3 days)

Analysis

3-4 days

Integration into Histo report

Reporting

0.5 day

8-10 days

CPGC

CPCG: Scrolls / sections cut for genomics, plus test request

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Methodology

- Data from up to **30 patients** who had **genomic testing for Non-Small Cell Lung Cancer** between **1 June 2024 and 31 August 2024**
- Pre-genomic (histopathology) → genomic testing → Post-genomic (histopathology)
- 93% return rate from pathology sites across GMSA

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Initial Regional Data Overview – East GMSA

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East GMSA	N=288	Mean	Median	Mode
Transport to pathology lab		0.4	0	0
Pathology processing	Arrived to booked in Booked in to post prep Prepped to first report First report to genomic request Genomic request to sent	0.2 2.7 5.5 6.9 2.8	0 2 4 0 1	0 1 1 0 0
Pathology to Genomics		1.4	1	1
Genomics processing	Arrival to NGS report	9.9	10	13
Genomics to pathology		0.9	0	0
Pathology receipt to clinicians	Receipt to upload to LIMs Integration to final report Final report read by clinicians	1.5 4.1 14	0 0 14	0 0 0
Total TAT	Available Read	41.1 45.3	26 39	27 35

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Outputs

Reflex Testing (requesting genomic testing once a diagnosis of cancer is made)

- Address unwarranted variation in reflex genomic testing

Collaboration and Oversight

- Work with NHS England & Pathology networks to review Pathology challenges:

  Cellular Pathology Genomic Centres and Immunohistochemistry testing

Local Trust Initiatives

- With report: encourage local teams to review their pathology pathways

Data and Transparency

- Developing a genomic dashboard for the East Genomic Medicine Service Alliance

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Acknowledgements and Key Contacts

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- Dr Emily Scott, Clinical Oncologist and Project Lead for CGIP, East GMSA
  emily.scott5@nhs.net
- Professor Dick Sandford, East GMSA Clinical Director
  r.sandford@nhs.net
- Emmanuel Ncube, East GMSA Strategy Director
  emmanuel.ncube@nnuh.nhs.uk
- Jo Lowry, East GMSA Regional Programme Manager
  jo.lowry@uhl-tr.nhs.uk
- Sarah Miller, Head of Informatics and Performance Improvement, East of England Cancer Alliance
  Sarah.miller14@nhs.net