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# Clinical and Biological Factors associated with Relapse and Length of Survival following Relapse in UK Neuroblastomas

## A Guide to the Study



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**By Nermine O Basta, Richard JQ McNally & Deborah A Tweddle**

# About the study:

## Background

The term **'Relapse'** describes when there is recurrence or progression of a cancer following an initial response to treatment.

The term **'Refractory Disease'** is when a cancer persists after at least 2 different induction chemotherapy regimens

- There have been many advances in neuroblastoma therapy, but **relapse still occurs in 50% of high risk cases**
- In most cases of relapsed neuroblastoma a cure is no longer possible
- Some clinical and genetic factors associated with length of survival following relapse have been identified
- In a previous study the research team identified that a genetic abnormality known as **'MYCN amplification'** was associated with shorter post relapse overall survival
- **Many other genetic factors present at diagnosis and relapse are likely to be important** in predicting response to Phase I and II treatments given at relapse

## Aims

1. To determine clinical and genetic factors associated with neuroblastoma relapse and length of survival following relapse, by reviewing patient's:
  - **epidemiological data**
  - **clinical information**
  - **existing genetic data**
2. To compare existing genetic profiles on patients on the recent high risk SIOPEX HRNBL-1 trial, who have relapsed with those who haven't relapsed
  - to determine whether particular genetic abnormalities are associated with an increased risk of relapse
3. To determine whether the median survival time following relapse is associated with the time interval from diagnosis to relapse

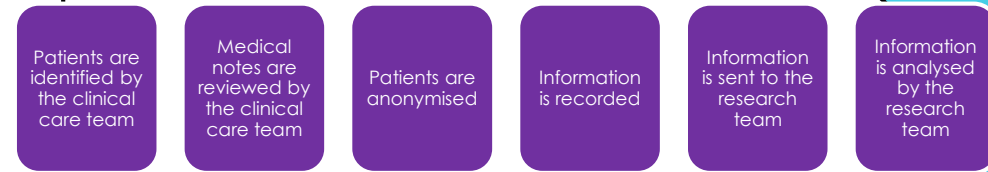
# How the study works:

A **'retrospective study'** which looks back on previous patients' cases

All **relapsed and refractory neuroblastoma cases** in children and young people aged 0-40 years, from 2000-2022 will be eligible for inclusion in this study, these will be

- identified from all the 21 'Paediatric Oncology Principal Treatment Centres' in the UK and Ireland
- cross-checked with data from the national childhood, teenage & young adult registries and adult cancer registries

How the patient information will be collected:



Principal Treatment Centres taking part:

Aberdeen	Leicester
Belfast	Liverpool
Birmingham	Manchester
Bristol	Newcastle
Cambridge	Nottingham
Cardiff	Oxford
Dublin	Royal Marsden
Edinburgh	Sheffield
Glasgow	Southampton
Great Ormond Street	UCLH, London
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