

Neuroblastoma Terminology

Term	Description
ALK	Anaplastic Lymphoma Kinase: A gene that, when mutated, plays a role in the development and progression of Neuroblastoma.
Antibody	A substance made by the immune system to recognise and defend against bacteria, viruses, and tumours.
Biomarker	A biological indicator that can be measured and used to diagnose or monitor disease.
Biopsy	The removal of a small tissue sample for examination.
Bone Marrow	The spongy tissue found in the cavities of bones, where blood cells are produced.
Chemotherapy	A treatment which kills cancer cells by targeting and destroying fast growing cells.
Clinical Trial	A research study designed to test the effectiveness of new treatments or procedures.
COG	Children's Oncology Group: A North American cooperative organisation that brings together experts in paediatric cancer.
Consolidation	A course of treatment using chemotherapy given during remission aimed at further reducing or eliminating any remaining cancer cells to increase the chances of long term remission.
Data	The information collected through observation, experimentation, or analysis.
Disease Free Survival (DFS)	The length of time after treatment during which a patient is free from any signs or symptoms of disease. This may also be referred to as event free survival (EFS).
Genomic Sequencing	Analysing a patient's genetic code to identify specific mutations or genetic factors which may effect disease course or treatment options.
Histopathology	The microscopic examination of tissues to study the characteristics of cancer cells.
Hypothesis	A testable idea that serves as the basis of scientific investigation.
Immunotherapy	A treatment which boosts the patients own immune system to recognise and kill cancer cells.
Indolent	A slow growing cancer.
ITCC	Innovative Treatments for Children with Cancer: A European collaborative which focuses on advancing knowledge about childhood cancer to enhance quality of care and survival rates.
Late Effects	The long term physical, psychosocial, or medical effects of cancer treatment.
Metastasis	The spread of cancer from the primary tumour to other parts of the body.
Minimal Residual Disease (MRD)	The small number of cancer cells that may remain in the body after treatment.
MYCN Status	Refers to the presence or absence of the MYCN gene, which is associated with the aggressiveness of neuroblastoma and is used to determine risk and treatment approach.
NANT	New Approaches to Neuroblastoma Therapy: A collaborative group in the United States which specialises in developing treatments for Neuroblastoma.
Neuroblastoma	A rare childhood cancer that originates in immature nerve cells.
Neutropenia	A low level of neutrophils (a type of white blood cell), which can increase the risk of infection.
Oncogene	A gene which, when mutated or activated, can contribute to the development of cancer.

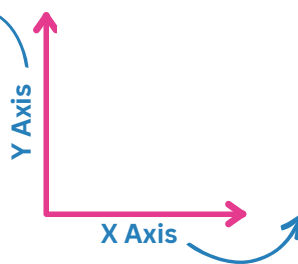
Neuroblastoma Terminology Continued..

Term	Description
Overall Survival (OS)	The length of time after diagnosis a patient lives. This helps us understand how well treatments work.
Paediatric Oncologist	A medical doctor who specialises in treating children with cancer.
Pilot Study	A small initial study to gather preliminary data, and assess the feasibility of a larger study.
Pharmacokinetics	The study of how drugs are absorbed, distributed, metabolised, and excreted by the body.
Phase I Clinical Trial	The first stage of testing a new treatment in humans, focused on safety and dosage.
Phase II Clinical Trial	The second stage of testing a new treatment in humans, aimed at evaluating its effectiveness and side effects.
Phase III Clinical Trial	A large scale study that compares a new treatment to the current standard of care to assess its safety, effectiveness, and potential benefit to the intended patient population.
Prognosis	The likely course and outcome of the disease, often expressed as a survival rate.
Protocol	The standardised plan or set of guidelines for the diagnosis and treatment of neuroblastoma.
Quality of Life (QoL)	The overall well-being and satisfaction of a patient's life, taking into account physical, emotional, and social aspects.
Radiotherapy	The use of high-energy radiation to target and destroy cancer cells.
Refractory	Disease that does not respond, or has a limited response, to treatment.
Relapse	The return of the disease after a period of improvement or remission.
Remission	A period of time in which there are no signs or symptoms of disease.
Sample Size	The number of subjects or data points included in a study. Generally, the more subjects there are the more confident we can be with the results.
SIOPEN	International Society of Paediatric Oncology European Neuroblastoma Group: A collaborative network of paediatric oncology centres in Europe and beyond which focuses on Neuroblastoma research and treatment.
Staging	The process of determining the extent of cancer which helps guide treatment decisions.
Statistical Analysis	Using mathematical methods to interpret and draw conclusions from data. This is often presented using * symbols. The more stars the more statistically significant a result is.
Stem Cell Transplant	A procedure to replace damaged or destroyed bone marrow with healthy stem cells.
Survivorship	Life after completing treatment, including long term follow up care and potential late effects.
Tandem Transplant	A medical procedure in which the patient undergoes two rounds of high-dose chemotherapy followed by stem cell transplants.
Targeted therapy	Treatments that specifically target cancer cells based on their unique characteristics.
Tumour	An abnormal mass of cells that can be benign (non-cancerous) or malignant (cancerous).
Variable	A factor in an experiment which can change to understand its impact on an outcome.

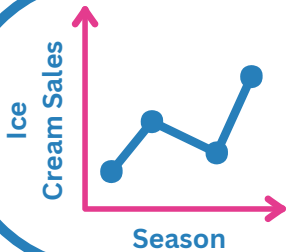
Your Guide to Data Presentation

A graph is a visual tool that helps us understand how two things are connected.

The vertical line is called the Y-axis. It represents the dependant variable. This is the factor we're observing to see how it responds when we make changes to the independent variable.



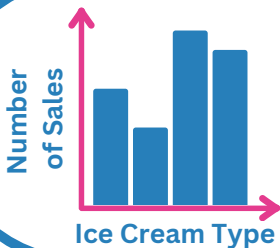
The horizontal line is called the X-axis. It represents the independent variable. This is the factor we want to learn more about and we want to see how changing it influences something else.



Line Graph

A line graph is a way of displaying a **trend over time**. In this example we are tracking ice cream sales over the seasons.

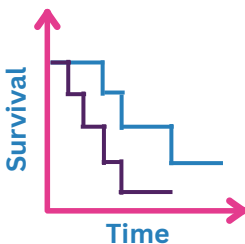
In this example, we want to understand how ice cream sales (dependant variable) change over the seasons (the independent variable).



Bar Chart

A bar chart uses columns to group data points into categories. They are useful when **comparing values across different categories**.

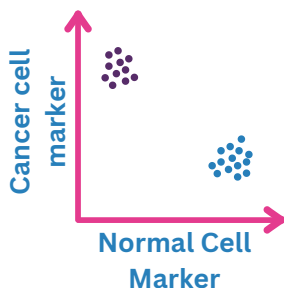
In this example, we want to understand which ice cream types (independent variable) sell the most (dependant variable).



Survival Plot

A survival plot, also known as a Kaplan-Meier plot, is a tool used to visualise and **understand survival data**.

In this example, the survival probability in the group represented by the blue line drops more slowly than that in the purple group. This suggests that the intervention used in the blue group has a greater effect on survival.



Flow Cytometry

Flow cytometry is a tool that helps us **identify types of cell in a sample**. Different cell types have different surface markers which we can use to identify them.

On a flow cytometry plot, each dot represents a single cell. In this example plot we can see two groups of dots, suggesting that our sample has two different types of cell. The purple group of cells has markers of cancer cells, whereas the blue group has markers of normal cells. So, in this example, we have two sets of cells, one with normal cells and one with cancer cells.