Term	Description
Access	A term used to describe the decision to make medicines (or technologies) available to patients. Decisions regarding access to medicines are carried out at many different levels. See: funding decisions pricing and reimbursement.
Activated T-cells	T-cells are activated when they come into contact with antigens present on the surface of cancer cells.[1]
Adoptive cell transfer	Technique involving the transfer of laboratory-adapted immune cells to patients, for example chimeric antigen receptor (CAR) T-cells.[3]
Antibodies	Proteins produced by B-cells that bind to specific antigens on the surface of harmful cells in the body. Antibodies mark these harmful cells for destruction by immune cells. This is an important aspect of the immune system, but antibodies can also be made in laboratories.[3] [4]
Anti-cancer activity	The ability of a treatment to reduce the number of cancer cells or size of a tumour.
Anti-cancer response	Immune response which leads to the destruction of cancer cells.[5]
Antigen	Any substance that causes the immune system to respond. These can include proteins on bacteria, viruses and cancer cells.[3] [4]
Antigen presenting cells	Cells that digest harmful antigens in the body and present them to T-cells, starting an immune response.6
Anti-tumour response	Immune response which leads to the destruction of cancer cells.[5] See: anti-cancer response.
B-Cells	Immune cells responsible for producing antibodies for specific antigens. [6]
Cancer cells	Cells with damaged DNA which creates abnormal cell growth and division. New cancer cells grow uncontrollably and old cancer cells do not die when they should. Most types of cancer cells form a lump or mass called a tumour. These cancer cells can spread to other parts of the body. [2] [3] [6] See: tumour.
Cancer progression	When cancer cells spread from the initial site of the tumour to other parts of the body.
Chemotherapy	A type of cancer treatment which uses drugs to disrupt cancer cell function in order to destroy the cells. Can be administered alongside surgery or radiation. [3] [7]
Chimeric antigen receptor T-cells (CAR T-cells)	A type of laboratory-produced T-cell used in adoptive T-cell transfer. They are equipped with special receptors called chimeric antigen receptors (CARs) that recognize specific proteins on the cancer cells enabling them to be destroyed. [4] See: adoptive cell transfer
Clinical trial	Research that uses human volunteers to study the effectiveness and safety of new interventions such as screening, prevention, diagnosis or treatments. Clinical trials are an important part of medical research that form the basis for the approval of all new treatments. [3] [4]
Cytokines	Messenger molecules that help control immune cell activity and growth. They can be produced in a laboratory or naturally by immune cells. [3] [4] [6]

Term	Description
Delayed effects	Unlike traditional cancer treatments, immuno-oncology therapies can have a longer delay between treatment and anti-cancer effects. This is because it does not act directly on the tumour, but it has to wait for the immune cells to grow and adapt before effects can be seen.
Dendritic cell	A type of antigen-presenting cell. It captures antigens and presents them to T-cells causing activation. They also can regulate other immune cell. [3] [6]
Diagnosis	The use of symptoms, signs and medical tests to determine whether someone has cancer or another disease. For most types of cancer, a biopsy is needed to be sure of the diagnosis. [2] [3]
Drug discovery	The process by which potential new medicines are identified in the lab. These medicines are then investigated in animals, and then in humans in clinical trials. [8] [9]
Equilibrium	A state of balance between two opposing forces, in this case between the immune system and the cancer cells.
Hormonal therapy	A type of cancer treatment that involves medicines which interfere with hormone production or function.2 Used to kill or slow the growth of cancers that are dependent on given hormones Hormone treatment may also involve the surgical removal of specific hormone-producing glands.
Immune cells	Cells of the immune system that defend the body against diseases and foreign invasion. They include B-cells, T-cells, white blood cells and others. [6]
Immune checkpoint inhibitors	Drugs that block the activation of specific immune checkpoint pathways.[6] Also referred to as immuno-oncology therapies.
Immune checkpoint pathways	A system of checks and balances which are able to prevent over-activation of the immune system. Any immune response has many different pathways which function at different times which allows for this regulation.[6] See: pathways.
Immune side-effects	Side-effects that may occur with cancer immunotherapies due to the hyperstimulation of the immune sytem. Specific immune effects will vary depending on the medicine given and the response of each individual patient.
Immune escape	The ability of cancer cells to evade immune cells and avoid an immune response to them. This can happen both before and after tumour development.[12]
Immune response	The series of events that occur in the body to defend against “invaders” such as bacteria, viruses, and cancer cells. The response is due to the action of immune cells.[3] See: immune cells.
Immune system	A network of organs, cells, and molecules that helps defend the body against threats or ‘invaders’ such as bacteria, viruses and cancer cells.[4]
Immune tests	A type of laboratory tests necessary to evaluate the strength of the immune system.[13]
Immunotherapy	Type of cancer treatment which focuses on using the body’s own immune system to fight cancer. Also known as immune-oncology.[6]

Term	Description
Indication	The specific diseases or conditions for which a given medicine may be used. Medicines may have more than one indication, meaning there is more than one disease for which it can be used. See: label and regulatory approval.
Interferons	A type of cytokine that boosts the ability of certain immune cells to attack invaders like viruses or cancer cells. They can also be produced in a laboratory. [4] [6]
Interleukins	Proteins produced by T-cells that regulate the production of immune cells and cytokines. Certain interleukins can also be grown in a laboratory.[4]
Intravenous	When a medication or fluid is given to the body through a needle or tube inserted into a vein, allowing immediate access to the blood supply.[14]
Label	See: indication
Long-term survival	The potential to live for several years. See: survival
Marketing authorisation	Drugs must be authorised before they can be marketed and sold in different countries. At the European level, marketing authorisation is granted by the European Medicines Agency (EMA). National bodies can also authorise medicines. [15]
Memory cells	Certain types of T-cells and B-cells continue to be present after the infection is finished. They 'remember' specific antigens and if exposed again, can rapidly multiply to create an immune response. This second response is faster and more effective than the initial immune response. [3] [6]
Monoclonal antibodies	Monoclonal antibodies are a type of protein designed in a laboratory to target antigens located on the surface of cancer cells. The antibodies find their target antigens and recruit immune cells to attack them. They can also be used to carry medicines, radiation or other therapies directly to a tumour. [3] [4]
Mutation	Any change in the cell's genetic material (DNA). This can occur during normal cell division or due to environmental factors and it may or may not lead to damage and disease. [3]
Natural Killer Cells	White blood cells that are able to kill virally infected or cancerous cells. They also communicate with T-cells to regulate their response. [6]
Non-specific immune stimulation	Immunotherapies which do not target cancer cells specifically, but stimulate the immune system in a more general way. This can sometimes lead to a better response against the cancer cells. [16] See: cytokines, interleukins and interferons.
Pathogen	Something that causes a disease, such as a bacteria, virus.[3]
Pathways	A sequence of biochemical reactions that the body uses to convert one substance into another. For example, immune pathways are used to 'turn-off' or 'turn-on' the immune system to regulate it as necessary. [3] See: immune checkpoint pathways.
Pricing and reimbursement	The regulatory processes by which a price is set for medical services and treatments in a given country (pricing); and the level at which it

Term	Description
	will be paid, and by whom, is decided (reimbursement). For example medicines may be entirely reimbursed by social security, or paid in part by the individual. Pricing and reimbursement processes are specific to each Member State within the European Union.
Radiotherapy	Use of high-energy radiation to destroy cancer cells or shrink tumours. Often delivered by X-ray equipment or via internal radiation implants.[3]
Regulatory approval	All medicines must be approved by a regulatory body before they can be used. Regulatory bodies independently evaluate the clinical trial data for each new medicine to establish that it is safe and effective to be given to patients. The largest regulatory bodies are the European Medicines Agency (EMA) in Europe and the US Food and Drug Administration (FDA) in the United States. Each country may also have its own regulatory authorities.[17]
Scan	A test using x-rays, magnets, sound waves or radioisotopes to make pictures of the internal body structures. Scans are used to detect or stage cancer. Also known as imaging tests.[2] See: diagnosis
Survival rate	The percentage of people who have survived the cancer for a specified amount of time, for example 5-year and 10-year survival rates.
Targeted therapy	A type of cancer treatment that is able to target cancer cells which present specific characteristics (e.g. antigens or genes).[2]
T-cells	Immune cells that can adapt and recognise specific antigens when they are presented. They are a type of white blood cell that once activated, will seek and destroy 'invading' pathogens such as cancer cells. [3] [6]
Tumour	A collection of cells with abnormal growth. A tumour is called malignant when it is cancerous and a non-cancerous tumour is called benign. However, not all cancers form tumours, such as blood cancers.[2]
Vaccine	A substance which is injected to stimulate the immune system to destroy bacteria, viruses or tumours. Their main function is to create memory cells to fight off future disease.[3]
Vector	An organism, including bacteria and viruses, that delivers a pathogen.[3]
White blood cells	White blood cells are made in the bone marrow to help defend the body against infections and disease. There are many types such as T-cells, neutrophils, and macrophages. Certain cancer treatments (including chemotherapy) can reduce the number of these cells. [3] [4]

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