

Prostate Cancer Glossary – Disease pathways, impacts, treatments etc (May 2021)

When confronted with a prostate cancer diagnosis, aside from the initial shock, the terminology relating to the disease and its potential treatments and implications can be bewildering. So, drawing on a number of glossaries and other sources on the topic, we have attempted to pull together a reasonably comprehensive list of the terms you may encounter on your journey. We hope it will be helpful and would welcome any feedback on its usefulness and how it might be improved.

As always, it is essential to remember that the material included does not purport to be medical advice: instead, it is information of a general nature, intended to help discussions with your medical team about the diagnosis and treatment options relevant to your particular circumstances.

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Adjuvant therapy or adjuvant treatment: Treatment given after the primary treatment to increase the chances of a cure. In cancer, adjuvant treatment often refers to chemotherapy, hormonal therapy or radiotherapy after surgery, which is aimed at killing any remaining cancer cells.

Androgen: A hormone with masculinizing properties, for example, testosterone. Androgens stimulate growth of both normal prostate and most malignant prostatic cells.

Androgen Deprivation Therapy (ADT): A therapeutic strategy designed to decrease circulating levels of the male androgen testosterone, and its related compounds. Can be done by removing organs that produce testosterone (for example, testicles, called orchiectomy), or by giving medication (See immediately below/hormone therapy).

Androgen agonists/LHRH agonists/Hormone treatment: Luteinizing hormone-releasing hormone (LHRH) agonists (also called LHRH analogues or GnRH agonists) are drugs that lower the amount of testosterone made by the testicles. Treatment with these drugs is sometimes called medical castration. With these drugs, the testicles stay in place, but they will shrink over time, and they may even become too small to feel. LHRH agonists are injected or placed as small implants under the skin. Depending on the drug used, they are given anywhere from once a month up to once a year. LHRH agonists include: Leuprolide (Lupron, Lucrin, Eligard – latter two are most common in Australia); Goserelin (Zoladex); Triptorelin (Trelstar or Diphereline); Histrelin (Vantas). When LHRH agonists are first given, testosterone levels go up briefly before falling to very low levels. This effect is called a flare and results from the complex way in which these drugs work. Men whose cancer has spread to the bones may have bone pain. Men whose prostate gland has not been removed may have trouble urinating. If the cancer has spread to the spine, even a short-term increase in tumour growth as a result of the flare could press on the spinal cord and cause pain or paralysis. A flare can be avoided by giving drugs called anti-androgens (discussed below) for a few weeks when starting treatment with LHRH agonists.

Androgen antagonists (also known as Androgen receptor blocking agents): oral agents (other than Firmagon, which is administered via depot injection) that, rather than blocking the production of androgens, block androgen receptors, thus limiting the body's ability to make use of the androgens produced. Agents include: flutamide (Eulexin); nilutamide (Nilandron or Anandron; latter most common name in Australia); bicalutamide (Casodex or Cosudex: latter most common name in Australia); degarelix (Firmagon: US trade name, Degarelix); apalutamide (Erleada or Erlyand); enzalutamide (Xtandi)

Androgen biosynthesis blocking agents: see Androgen agonists

Anti-Androgen Withdrawal (AAWD): A clinical syndrome in which discontinuation of an anti-androgen in a patient may result in a decline in PSA, symptomatic improvement or tumour regression; effective in 15 to 30 percent of patients for a short time.

Benign Prostatic Hyperplasia (BPH): Non-cancerous enlargement of the prostate gland, which often results in difficulty with urination. The incidence increases with age.

Biopsy: Sampling of tissue.

Bone Scan: A nuclear medicine imaging study that utilizes a radioactive compound that is injected into a vein to identify areas of increased bone cell activity in the skeleton; used to screen for the presence of bone metastases.

Bone targeting agents: therapies that attempt to slow down the bone destruction caused by bone metastases. This causes significant morbidity and mortality associated with prostate cancer, leading to skeletal-related events (SREs) that include pathologic fractures, severe pain, and pressure on the spinal cord.

Boost: An additional dose of radiation that is given after an initial course of treatment, to enhance tumour control.

Brachytherapy: A type of radiotherapy treatment that implants radioactive material sealed in needles or seeds into or near the tumour. Also called "implants" "rods or catheters" or seed radiation. Or Low dose rate (LDR) –"seeds" or High dose rate "brachytherapy".

Cancer: A group of diseases characterized by uncontrolled cell growth. Cancer cells, unlike benign cells, exhibit the properties of invasion and metastasis.

Catheter: A general term for a tube that is inserted to drain fluids from or instil fluid into the body.

Chemotherapy drugs used to treat prostate cancer: For prostate cancer, chemo drugs are typically used one at a time. Some of the chemo drugs used to treat prostate cancer include: Docetaxel (Taxotere); Cabazitaxel (Jevtana). In most cases, the first chemo drug given is docetaxel, combined with the steroid drug prednisone. If this does not work (or stops working), cabazitaxel is often the next chemo drug tried (although there may be other treatment options before this as well). Docetaxel and cabazitaxel have been shown to help men live longer, on average, than older chemo drugs. They may slow the cancer's growth and also reduce symptoms, resulting in a better quality of life.

Clinical Trials (see also Endpoints):

- Phase I: A clinical trial designed to determine the appropriate dose and toxicities of an investigational agent or treatment.
- Phase II: A clinical trial designed to determine the effectiveness and side effects of an investigational agent or regimen.
- Phase III: A clinical trial designed to test the effectiveness of a given treatment as compared to existing treatments.
- Phase IV: Phase IV clinical trials are conducted after a drug has been approved to learn more about the side effects, long-term benefits and risks and widespread efficacy of a drug or treatment.

See also: **Endpoints**

Combined Androgen Blockade (CAB): "Hormone therapy"; testosterone blockade achieved with the combination of medical or surgical castration and an antiandrogen.

Combinational Hormonal Therapy (CHT): The blocking in manufacturing of testosterone through surgical or chemical castration plus an antiandrogen to inhibit the prostate cancer receptor cells from utilizing dihydrotestosterone converted from the testosterone of the adrenal glands.

Computerized tomography (CT or CAT scan): Computer assisted tomography. A radiologic imaging study in which cross-sectional images of the body are obtained. For EBRT, CT scans are used for treatment planning.

Concurrent: This means simultaneous. With EBRT, usually refers to androgen deprivation that is given during the course of treatment.

Controls: A standard against which experimental observations may be evaluated, as a procedure identical in all respects to the experimental procedure, except for absence of the one factor that is being studied.

da Vinci Prostatectomy: combines robotics and a laparoscopic approach—tiny incisions are made in the patient's abdomen so that surgical tools and a lighted tube with a camera on its tip can be inserted through to allow for surgery—to remove all or part of the prostate gland.

Disease progression: everyone is different, so there is no sure fire way of predicting the rate and at which prostate cancer will progress and a person's survival rate. A number of tools are available that have been developed in the US, based on historical data, typically using PSA, Gleason score, and clinical stage to predict pathologic stage, e.g:

Kattan Nomograms - https://www.mskcc.org/nomograms/prostate/post_op

Han Tables - [https://www.hopkinsmedicine.org/brady-urology-](https://www.hopkinsmedicine.org/brady-urology-institute/conditions_and_treatments/prostate_cancer/risk_assessment_tools/han-tables.html)

[institute/conditions_and_treatments/prostate_cancer/risk_assessment_tools/han-tables.html](https://www.hopkinsmedicine.org/brady-urology-institute/conditions_and_treatments/prostate_cancer/risk_assessment_tools/han-tables.html)

Partin Tables - <https://prostatecancerinfolink.net/tips-tools/partin-tables/>

NB: *The results produced by these tools are not definitive and should only be used as one possible basis of a discussion with your clinicians about the optimal treatment path for you*

Dihydrotestosterone (DHT): A derivative of testosterone, which has a higher biologic activity within the prostate than testosterone; blocked by 5-alpha reductase medications, such as finasteride (Proscar) and dutasteride (Avodart).

Drugs used to treat prostate cancer in Australia:

Category	Generic names	Trade names	Delivery method
LHRH Agonists	Buserelin* Goserelin Histrelin Leuprorelin Triptorelin	Receptal Zoladex Vantas Eligard, Lucrin+ Diphereline	Depot injection - subcutaneous injection into the abdomen. (NB:.) A depot is thought to form at the injection site so that the drug is slowly released. (Note:*Buserelin can also be taken as a nasal spray; +Lucrin is intramuscular, given into muscle sites usually in upper arm, thigh or buttock)
LHRH Antagonists	Degarelix	Firmagon	Depot injection
Androgen biosynthesis blocking agents	Abiraterone Cyperterone	Zytiga Androcur, Cyprone, Cypostat, Cyprohexal, Cyprocur, GenRx, Procur	Oral
Androgen receptor blocking agents	Bicalutamide Flutamide Nilutamide Enzalutamide	Bicalutamide-AN, Bicalutamide-GA, Bicalutamide Ranbaxy, Casodex, Cosamide, Cosudex Flutamin Anandron Xtandi	Oral
5 alpha-reductase inhibitors	Dutasteride Finasteride	Avodart Apo- Finasteride, Finasta, Finasteride Alpha Pharma, Finasteride-AN, Finasteride-GH5, Finasteride RBX5, Finpro, Pharmacor Finasteride, Proscar	Oral
Chemotherapy	Docataxel Cabazitaxel Mitroxantone	AS Docataxel, Docataxel Ebewe, Docataxel Sandoz, DBL Docataxel, Dotax, Oncotaxel, Taxotere Jevtana Kit DBL Mitroxantone, Mitroxantone Ebewe, Oncotrone	Intravenous
Bone targeting agents: Bisphosphonates RANKL inhibitors	Zoledronic acid Denosumab	Aclasta, Zometa Prolia, Xgeva	IV Subcutaneous
Immunotherapies	Pembrolizumab Sipuleucel-C?	Keytruda Provenge (NB: expensive US treatment not approved by the TGA for use in Australia. For more information see https://onlinecommunity.pcfa.org.au/t5/Research-Blog/Where-are-the-prostate-cancer-immunotherapies/ba-p/4942)	Intravenous
Radio-therapies	Radium-233	Xofigo	Intravenous

Endpoints for clinical trials: In prostate cancer clinical trials, overall survival (OS) can be an impractical endpoint because survival is so long, hence a number of intermediate endpoints have been developed for evaluating clinical trials. These measures are used by therapeutic regulatory agencies to determine the efficacy of treatments for approval purposes. They may comprise either surrogate/intermediate endpoints (is the tumour responding or delay in the tumour progressing?) or impact on overall survival times. The former measures may be statically significant for regulatory approval purposes but may not lead to significantly improved survival or its quality. (see also **Hazard Ratio**)

Epidural Catheter: Catheter inserted into the space surrounding the spinal cord; used after radical prostatectomy or during HDR brachytherapy to instil medication to block pain.

Epithelium: Cells that line body surfaces and cavities. These are the cells that produce secretions, such as PSA in the prostate and are the cells from which 80-90% of carcinomas are derived.

Erectile Dysfunction (ED): See Impotence

External Beam Radiation Therapy (EBRT): High-energy X-rays or photons used to kill cancerous tissue in the prostate, and elsewhere in the body.

5-Alpha Reductase Inhibitor: A medicine that blocks conversion of testosterone to dihydrotestosterone; inhibits prostate growth.

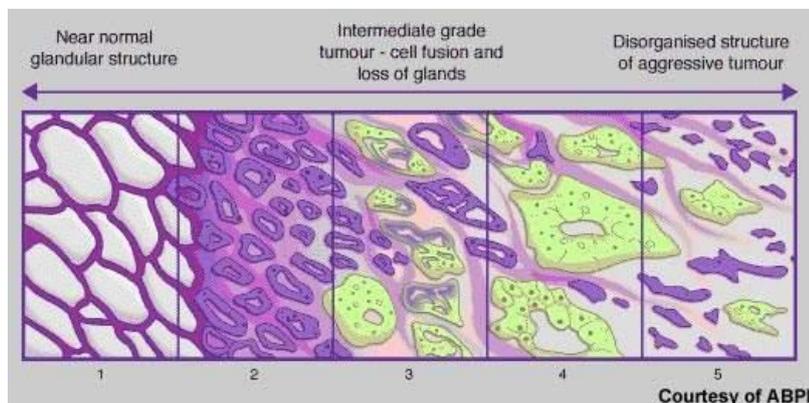
Foley Catheter: A tube that is placed into the bladder, used to drain urine.

Gantry: The part of the linear accelerator that moves around the patient and functions in the delivery of EBRT.

Gleason Grade and Score: A subjective method of measuring the differentiation of cells to classify tumours by their microscopic appearance and how aggressively cancer cells may multiply. This system divides prostate cancer into five histologic patterns ranging from 1-5 (see diagram). Patterns 1 and 2 represent well-differentiated tumours and are dealt with more easily; Gleason patterns 3 represents moderately well-differentiated tumour cells beginning to scatter; Gleason patterns 4 and 5 indicate poorly differentiated cells with the potential for fast growth. The total Gleason score is determined by adding a primary and secondary score pattern for each prostatic lesion i.e. 3+4=7. The most well-differentiated cancer cells would consist entirely of Gleason pattern 1 (primary +secondary + 1+1 or Gleason 2) and the most poorly differentiated cancer cells would have a 5+5 or total Gleason score of 10. Gleason scores of 1 and 2 are not usually recorded on biopsies and the lowest Gleason grade reported is usually a grade 3 and score of 3+3=6 being the lowest Gleason score reported.

There is a new grading system for Prostate cancer called ISUP Grade Groups: for more information, see

https://www.dhm.com.au/media/Multisite8416/dhm_information-for-clinicians_assessment-of-prostate-disease_201904.pdf



Gray (Gy): A measurement of the amount of radiation given.

Gynecomastia: Enlargement of breast tissue in a man - may occur with the use of androgen deprivation.

Hazard ratio (HR): It is a common practice when reporting results of cancer clinical trials to express survival benefit based on the hazard ratio (HR) from a survival analysis as a "reduction in the risk of death," by an amount equal to $100 \times (1 - HR) \%$. HRs require careful interpretation and need to be considered alongside more time based measures related to the impact on survival, such as the median survival rate.

High Dose Rate Brachytherapy (HDR): A radiotherapy treatment involving temporary placement of a radioactive source in the prostate. Small flexible tubes are inserted into the prostate through the perineum to deliver a high dose of radiation in a short period of time (5 to 20 minutes), usually over 1-3 days.

Hormone Therapy: See androgen deprivation.

Immobilization Device: An external device used to help the patient remain in the same position for every radiation treatment.

Immunotherapy: Australian men currently have very limited options for treatment with immunotherapies. A very small proportion of men with metastatic prostate cancer are able to access Pembrolizumab (Keytruda) if they have specific gene mutations and meet

other requirements. Sipuleucel-T (Provenge) is used by some men in the USA. Although this treatment appears to increase life by a few months, it is expensive, has side effects and requires international travel. Australian men with advanced prostate cancer who are interested in this treatment are advised to ask their treating clinicians whether it would be worth trying to access this drug by travelling to the USA. There have been multiple promising immunotherapies for advanced prostate cancer that have been insufficiently effective to be approved for use in Australia. However, there are many clinical trials in progress testing new treatments, combining treatments and selecting the most appropriate patients for immunotherapies.

Impotence/Erectile dysfunction: Erectile dysfunction (ED) is common after radical prostatectomy and some other forms of treatment and may have a negative impact on health-related quality of life. ED is a condition in which a man is unable to obtain an erection or maintain it long enough for sexual intercourse. ED can affect relationships between partners if left untreated and many men feel embarrassed to talk to a doctor about this problem and sometimes will fall victim to various frauds and scams. (see also **Penile Rehabilitation**)

Intensity Modulated Radiation Therapy (IMRT): An advanced form of 3D-CRT (see below) that selectively raises doses at different places on the prostate and spares normal tissue with great precision.

Interstitial Implant: A type of brachytherapy in which radioactive material ("seeds") are implanted into the prostate.

Ionizing Radiation: A general term for particle beams that trigger ionization (excitation) of an atom or molecule. Ionizing radiation transfers energy into the tissues where it is deposited.

Laparoscopy: A surgical technique in which small incisions are made in the body in order to introduce specially designed telescopes and instruments.

Linear Accelerator ("Linac"): A machine used to deliver EBRT.

Luteinizing Hormone Releasing Hormone (LHRH) Agonist: Synthetic analogues of natural gonadotropin-releasing factor which induce a temporary increase in testosterone secretion followed by fall of testosterone to castrate levels.

Lymph Node: Filter nodules that are part of the body's drainage system for fluids. Also serve as a component of the immune system by removing bacteria, foreign particles, and cancer cells, etc. from the circulation. Often the site of tumour metastases.

Metastasis: Secondary growth of a cancer due to the spread of cancer cells away from the site of origin. The capacity to metastasize is a characteristic of malignant tumours.

Metastatic, castration-resistant prostate cancer (mCRPC): Metastatic castration-resistant prostate cancer (mCRPC) and its precursor, metastatic hormone sensitive prostate cancer (mHSPC), are advanced forms of the condition that don't respond to initial treatments, such as surgery and hormone therapy, and have started to spread beyond the prostate. The type mCRPC differs from mHSPC in that the latter disease still responds to standard hormone treatment called androgen deprivation therapy (ADT), even though it has spread to other parts of the body.

Magnetic Resonance Imaging (MRI): Similar to a CT scan, but this test uses magnetism instead of x-rays to build up cross-sectional pictures of the body with more detail

Multidisciplinary approach: This is the gold standard of effective treatment of prostate cancer, involving a team of health professionals, with each team member offering expertise in different aspects of a patient's treatment. The treatment team should meet regularly to update each other about the patient's health and progress. Patients should be informed about the information shared between team members, to help with understanding the cancer and its treatment, and to help with decisions about treatment. Members of the treatment team will vary according to the type and stage of the cancer and might change during the course of treatment. Often referred to as MDM or MDT.

Multi-Leaf Collimator ("MLC"): A part of the linear accelerator that is used to shape the EBRT beam.

Neoadjuvant therapy or neoadjuvant treatment: A treatment that is given before definitive local therapy. For EBRT usually refers to androgen deprivation given before the start of treatment.

Nonmetastatic, castration-resistant prostate cancer (nmCRPC): form of the cancer that's resistant to therapy but has not spread to other parts of the body (metastasized). Testosterone promotes the growth of this cancer in this gland (located between the bladder

and the penis), and androgen deprivation treatment (ADT) is often used to lower levels of this hormone and thereby shrink the growth.

Oligometastatic disease: With improvements to imaging techniques has come an increase in the detection of metastatic prostate cancer that has spread to only a small number of sites. This stage is often referred to as oligometastatic disease (oligo=few) – typically refers to 1-5 lesions.

Orchiectomy: Surgical removal of the testicles to eliminate testosterone; sometimes used to treat advanced prostate cancer As an alternative to ADT.

Optimal Cancer Care Pathway (OCP) for Prostate Cancer: The purpose is to help patients and their families understanding of the whole pathway and its distinct components to promote quality cancer care and patient experiences. The OCP is intended to act as a reminder that the health system has a responsibility to deliver the care experience in an appropriate and coordinated manner (see also multidisciplinary teams).

See - <https://www.cancer.org.au/assets/pdf/prostate-cancer-optimal-cancer-care-pathway>

Osteoblastic: Term describing the type of bone metastasis associated with metastatic prostate cancer. These lesions are characterised by abnormal bone generation (osteoblastic) rather than bone loss (osteolytic).

Osteopenia: Decreased calcification or density of bone.

Osteoporosis: A reduction in the quantity or amount of bone; skeletal atrophy.

Penile Rehabilitation: Penile rehabilitation is defined as the use of any drug or device at or after radical prostatectomy to maximise erectile function recovery. The purpose of penile rehabilitation is to prevent smooth muscle damage to not only maximise the chances of a man to recover functional erections but also return him to his preoperative erectile function level. Treatments may include: oral drugs (e.g. Cialis, Viagra); penile injections (e.g. prostaglandin); mechanical devices (pumps/vacuum constriction devices); surgical options (such as penile implants).

PET scan: Positron emission tomography. A technique used to build up clear and detailed cross-section pictures of the body. The person is injected with a glucose solution containing a small amount of radioactive material. The PET scanner can 'see' the radioactive substance. Damaged or cancerous cells show up as areas where the glucose solution is being used. (see also **PSMA/PET scan**)

Pelvic Lymph Node Dissection: Removal of the lymph nodes in the pelvis, which filter body fluids from the prostate, bladder and rectum. The nodes may be removed during radical prostatectomy and examined for the presence of cancer cells.

Perineum: The area of the body between the anus and the base of the scrotum. In brachytherapy, needles containing radioactive seeds or in HDR, thin tubes are implanted in the prostate through the perineum.

Prostate Gland: A gland in the male, which surrounds the neck of the bladder and urethra. Secretions produced in the prostate contribute to the seminal fluid.

Prostate Specific Antigen (PSA): A protein produced by prostatic epithelial cells. The level of PSA often correlates with the likelihood and extent of prostate cancer and the size of the benign prostatic enlargement or BPH.

Proton Beam Therapy: An alternative form of radiotherapy not currently available in Australia. A facility is being built in Adelaide and is expected to be commissioned late 2023

PSMA/PET Scan: Unlike other cancers, prostate cancer generally grows slowly and often doesn't show up on standard PET scans. A PSMA-PET scan uses a different type of radioactive tracer that is targeted specifically at a protein present on most prostate cancer cells, called Prostate Specific Membrane Antigen (PSMA). A PSMA-PET scan can see small deposits of prostate cancer down to a few millimetres in size, so it is particularly good at detecting prostate cancer in the early stages when it first starts to spread. An accurate assessment of whether, and where, the cancer has spread helps tailor treatment to patients' individual circumstances. Currently PSMA-PET scans are most useful when undertaken as part of the initial staging for men with localised but 'high risk' prostate cancer, for men who appear to have a few limited sites of metastatic spread (called oligometastases) or for men with PSA recurrence after their initial surgery or radiotherapy.

PSA Nadir: The lowest point to which a patient's PSA drops following definitive treatment,

Prostatic Intraepithelial Neoplasia (PIN): A precancerous lesion of the prostate.

Peripheral Zone (PZ): The rear, outer area of the prostate gland where over 80 percent of prostate cancers originate.

Radiation Oncologist: A physician who specialises in treating cancer with radiation therapy.

Radiation Therapist: A person who is specifically trained to operate the linear accelerator and administer radiation therapy treatments. The radiation therapist is also expected to calculate the required radiation dose, localise the tumour volume, plan the course of treatment and verify accurate treatment delivery. (See: <https://www.heti.nsw.gov.au/education-and-training/our-focus-areas/allied-health/allied-health-professions-in-nsw-health/radiation-therapy>)

Radical Prostatectomy: Surgery in which the entire prostate gland and adjacent seminal vesicles are removed. They may be performed using different surgical techniques. There may be extra costs involved for some options and they are not all available at every hospital:

- *Open radical prostatectomy* - usually done through a cut in the lower abdomen.
- *Laparoscopic radical prostatectomy* - sometimes the prostate can be removed via keyhole surgery (also called laparoscopic surgery). Small surgical instruments are inserted through several small cuts in the abdomen, and the surgeon performs the procedure by moving the instruments while watching a screen.
- *Robotic-assisted radical prostatectomy (RARP)* - laparoscopic surgery performed using a robotic device that allows the surgeon to see a three-dimensional picture and to use more advanced instruments than those used for conventional laparoscopic surgery. This is called robotic-assisted laparoscopic radical prostatectomy or RARP.
- *Nerve-sparing radical prostatectomy* – removal of the prostate and seminal vesicles while trying to preserve the nerves that control erections. This procedure is more suitable for lower grade cancers and is only possible if the cancer is not in or close to these nerves. Problems with erections are common even if nerve-sparing surgery is performed.

Randomized Clinical Trial (see also Clinical Trails): A clinical trial in which the effectiveness of two or more treatments is compared. Patients are randomly assigned to treatments being tested to ensure that clinical features are balanced.

Refractory: A term commonly used to describe a situation where the disease is no longer controlled by current therapy. It amounts to disease progression.

Remission: Complete or partial disappearance of the signs and symptoms of disease in response to treatment: the period during which a disease is under control. A remission does not necessarily mean a cure.

Risk calculators: Han & Partin tables, Kattan Nonagrams (see **Disease Progression**)

Seminal vesicles: Paired glands located on either side of the prostate that secrete substances to nourish sperm.

Simulation: The process of planning radiation therapy. For EBRT, usually includes X-rays and a CT scan.

Staging: A medical term for the process of determining if a known cancer is still confined within the prostate where it is curable, or if it has spread outside of the prostate gland where it is probably not curable, but treatable. It is a system for classifying patients with malignant disease according to the extent and severity of disease, and thereby helping to determine the appropriate therapy. There are 2 systems for staging Prostate Cancer. The Tumour Nodes Metastasis (TNM) staging system offers greater precision and ranges from T1 through the T's and M's as shown below:

TNM	Description
T1	Cancer unpalpable in DRE
T1a	Less than 5 percent of sample malignant and low-grade -incidental finding during urology procedure
T1b	More than 5 percent of sample malignant and/or not low-grade- incidental finding during urology procedure
T1c	PSA elevated, not palpable, identified by prostate biopsy
T2	Tumour digitally palpable in DRE; organ confined
T2a	Confined to one lobe of gland
T2b	Confined to one lobe of gland, Palpable in both lobes
T3	Tumour has breached the prostate capsule
T3a	Extraprostatic extension
T3b	Seminal vesicle invasion
T4	Tumour extension to adjacent organs

Tx, N1, or M1	The tumour might or might not be growing into tissues near the prostate [any T]
Tx, N1, M0	The tumour might or might not be growing into tissues near the prostate [any T]. The cancer has spread to nearby lymph nodes [N1] but has not spread elsewhere in the body [M0]
Tx, Nx, M1	Metastasis to distant sites other than lymph nodes (bone)

Testosterone: The male sex hormone or androgen that causes characteristically male features - predominantly produced in the testicles that stimulates Prostate Cancer growth.

Three-Dimensional Conformal Radiation Therapy (3D-CRT): A means of delivering external beam radiation therapy resulting in high doses being delivered to the target with less exposure to surrounding tissue.

Transrectal Ultrasound: An imaging test in which an ultrasound probe is placed into the rectum to image the entire prostate. This test facilitates prostate cancer staging and prostate biopsy.

Transition Zone (TZ): The inner zone of prostate that surrounds the urethra. In general, few prostate cancers originate here; however, it is the area where benign prostatic enlargement occurs.

Treatment Plan: A radiation oncologist's prescription that describes how a patient should be treated, including the dose of radiation to be delivered, and the organs to be treated and protected.

"Tumor Flare": When LHRH agonists may temporarily stimulate tumour growth and symptoms. To prevent this, doctors usually recommend taking the antiandrogen (usually Bicalutamide -cosudex) every eight hours beginning at least two days before the first lupron or zoladex injection.

Urethra: A structure that drains urine from the bladder. It passes through the prostate gland (prostatic urethra) and through the penis (penile urethra).

Urinary Incontinence: Uncontrolled loss of urine.

Sources:

- <https://www.prostate.org.au/glossary-of-terms/>
- <https://www.ucsfhealth.org/education/prostate-cancer-glossary>
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