

A glossary of terms used in interventional cardiology: part 2



THE
OBLIQUE
VIEW

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We continue our series in which Consultant Interventionist Dr Michael Norell takes a sideways look at life in the cath lab...and beyond. In this column, he updates the definitions of terms used in interventional cardiology.

Some years ago I put together some definitions of words, phrases and acronyms, commonly encountered in the practice of angioplasty (percutaneous coronary intervention [PCI]), which I thought might be of assistance to the aspiring balloonist. It was cleverly (sic) headlined "Ten Atmospheres and All That" as a homage to the iconic non-textbook of English history that some of us may recall, and appeared in *Cardiology News* in its August 2006 issue; reprints are available.

The technology around PCI has expanded enormously in the last four years, so an update is now timely. On this occasion, and in the spirit of fairness, I felt that the *British Journal of Cardiology* should have its own turn to shoulder the, probably unwanted, literary burden of such an article, which, given the rated burst pressure of modern balloons, might perhaps be better titled "Twenty Atmospheres and All That".

Retrograde (approach to) CTO: A novel, if tiresome, method of reopening Chronic Total Occlusions when the more commonly used antegrade approach, atenolol and feigning deafness to symptoms, have all failed. Very rarely one has to 'encourage' patients that intervention is unnecessary and that their chest pain can be safely ignored. This can be achieved using a heavy blunt implement in order to convince them; a so-called 'CTO Club'. Treatment of bifurcation lesions (see below) can be avoided using a similar technique.

OCT: Optical Coherence Tomography – an intravascular imaging modality using light rather than ultrasound and thereby producing superior spatial resolution. This results in an aesthetically more pleasing and sepia-tinted image, akin to a sandstorm rather than a snowstorm.

MDT: Multi-Disciplinary Team – an increasingly important forum in which the management plan of an individual patient is devised by agreement among

all relevant specialities (e.g. surgery, intervention, social work, etc.). The final decision is reached transparently and by consensus. Depending on a unit's criteria dictating which cases are to be presented, the number of patients involved can be huge (note alternative: **Minimum Discussion Time**).

SYNTAX: Recently presented pivotal trial examining the 'real world' use of correct grammar when advising a patient as to the best mode of coronary revascularisation.

2b/3a (inhibitor): A potent platelet paralysing agent of inestimable value in the treatment of complex anatomy and in the setting of unstable clinical presentations. However, the resultant increased bleeding risk invariably prompts the serious operator to consider the pros and cons of its use and share their concerns with the catheter lab staff: "2b or not 2b; that is the question".

Stent strut: Celebratory dance performed when a particularly inaccessible or difficult lesion has eventually been treated. Such a reaction, often reminiscent of the gyrations produced by the Rolling Stones' Mick Jagger, is characteristically the proclivity of operators who had not appreciated the complexity of the case in the first place. This deficiency is termed **strut thickness**.

Polymer: A compound that is combined with an anti-proliferative agent and used in the manufacture of some drug-eluting stents. The stent is coated with the resulting mixture, the composition of which dictates the active drug's release kinetics. The science of this technology can be mindboggling and it is, therefore, important that the concepts involved are presented to clinicians at meetings or conferences, in a simple and easily understood manner. This is called an **absorbable polymer**.

Abluminal: This is the point at which your Latin 'O' level is now seen to be valuable. Had the Romans used drug-eluting devices, they too would have realised the logic of applying anti-proliferative agent only to the surface of the stent in contact with the vessel wall (i.e. *away from* the lumen). However, they would also have more correctly described this drug elution as being directed *towards* the vessel wall, in other words, **'adluminal'**.

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Bifurcation: Given that most coronary lesions are either before, after or *at* a branch point, this anatomy can be notoriously common. The recently published BBC-ONE study confirmed what most of us already knew: when considering the treatment of such cases, rather than embarking on a complex 'two-stent' strategy, you are much better off watching television.

'Take-off' angle: The angle at which a side branch leaves the parent vessel can impact on the outcome when treating bifurcation disease. If particularly acute, or severely obtuse, the appearances can strike such anxiety in an operator that he is obliged to leave the catheter lab and *take off*.

FAME: Another pivotal trial, this time assessing the value of pressure-wire guided PCI when compared with giving free rein to our oculo-stenotic reflex. It exposed the shortcomings of previous – and widely used – technology (the 'Mark One Eyeball'), and confirmed that what we see on the angiogram is not necessarily the truth. Perhaps any form of revascularisation – surgical or percutaneous – should be preceded by such functional testing in order to limit unnecessary stenting or pointless bypass grafting.

Soprano: A new 'family' of guide wires derived from the internal workings of a piano. They are particularly valuable when the operator's assistant is severely underperforming, in which case they can be 'suspended' using this technology. Other varieties of this type of wire, used punitively in similar circumstances, include the **Castrati** and the **Falsetto**.

Delivery system: Once stock is ordered from the manufacturer it is important for an interventional unit to ensure a robust method by which new catheters, wires, stents and balloons actually arrive on the catheter lab shelves and so be available for use.

Platform: Occasionally, ordered stock (see above) may be sent by rail in which case the exact knowledge of the place of arrival is vital.

Wall coverage: Technique for ensuring that at least one abstract will be presented at a forthcoming scientific meeting or conference by submitting a vast number on similar topics to the programme committee.

MACE: Major Adverse Cardiac Events – a composite end point including death, non-fatal infarction, target lesion failure, etc., used universally in interventional trials.

ACME: Accumulation of a Concocted Myriad of Events – an alternative and infrequently used composite incorporating a host of clinically less important events in a desperate attempt to drive the end point in the direction of significance, e.g. procedural palpitation, skin rash at 30 days or readmission with a sore throat.

Non-superiority: Strategy or device A is no better than strategy or device B.

Non-inferiority: Strategy or device A is no worse than strategy or device B.

Equivalence: Both strategies or devices are equally good (or bad).

Equipoise: 1. A position in which data supporting one of two approaches is exactly counterbalanced by evidence for the other.

2. A cross between a horse and a dolphin ●