I wonder if we do patients a favour in overdiagnosing and overtreating them

THE US National Cancer Institute (NCI) has called for a new, “21st century” definition of cancer to stop hundreds of thousands of people worldwide having unnecessary treatment that is often disfiguring and can be fatal.

Some local and international doctors support the call, saying it will help stem a rising incidence of overdiagnosis and overtreatment of cancer, ironically partly from improved screening and diagnostic technologies. They say it is time to change terminology that is 100 years old. Others say change is unhelpful, even dangerous, at this time.

The call comes after recommendations by an NCI working group led by Laura Esserman, director of the Carol Franc Buck Centre at the University of California, San Francisco, and published in the Journal of the American Medical Association (Jama) last month.

Recommendations include eliminating the word cancer altogether from common diagnoses, since many lesions detected during screening for breast, prostate, lung, thyroid, and other cancers are slow-growing, not life-threatening, and would not benefit from treatment.

Instead, such lesion should be labelled “Iddle” (indolent lesions of epithelial origin) conditions, and left untreated, as they are unlikely to cause harm, the researchers say. That is a radical idea that has not been welcomed unreservedly. Specialists say there is no way of knowing for sure whether or not slow-growing “early cancers” will become life-threatening.

Despite medical advances, the word “cancer” still invokes the “spectre of an inexorably lethal process”, when this is not always the case, the researchers say in the Jama report.

Cancers are by nature heterogeneous and can follow multiple paths, not all of which progress to metastases and death, and include indolent disease that causes no harm during the patient’s lifetime”. This complicates early diagnosis, but provides “an opportunity to adapt cancer screening with a focus on identifying and treating those conditions most likely associated with morbidity and mortality”, says Daniel Vorobiof.

Vorobiof, director of the Sandton Oncology Centre in Johannesburg, endorses the need for changing terminology, and says “overdiagnosis and overtreatment are “common and occur more frequently with unrestricted cancer screening”.

There is an ingrained belief in doctors and patients that the earlier a cancer is spotted and treated, the less likely it is to be lethal, because it will not have had time to grow and spread, he says. “That it is not always true, and many other factors, patient by patient, need to be considered.”

More sensitive tests and frequent screening mean more “cancer”, which leads to more “treatment”, which becomes a “merry-go-round” situation, Dr Vorobiof says.

Frecancerous lesions used to be uncommon, but are now one of the most common premalignancies — which some doctors call “early cancers” — thanks to improved diagnostics, (mammograms and other screening methods); many will never develop into cancers.

“I sometimes wonder if we really do patients a favour in overdiagnosing and overtreating them,” says Dr Vorobiof.

The public needs to know it is possible that people survive early-stage cancers “not because they are treated in time, but because their disease never would have become life-threatening at all”, he says.

UK specialist Dan Burke, emeritus professor of pharmaceutical metabolism, says the NCI call is “entirely sensible”.

Cancer terminology needs to reflect more accurately “what doctors know about a tumour and whether it will grow fast enough to be life-threatening”, says Dr Burke, head of research at Nature’s Defence in Leicester, who has devoted his career to cancer, its causes, detection, prevention and treatment.

“Oh course, you can never be 100% certain. That’s the reason we put carcinoma into terminology in the first place, but it’s time to abandon terminology that is 100 years old. Everyone is striving to detect cancer earlier,” he says, and one shouldn’t generalise too much, but there is this problem of unnecessary treatment.”

Doctors are often scared of being sued if they don’t treat a cancer aggressively

He points out that Dr Francis Crick, co-discoverer of the structure of the DNA molecule in 1953 with Dr James Watson, is on record predicting that it would lead to improved detection of cancer, and that scientists and doctors would need to be “very wise men” to grapple with the problem of what to do with a patient with cancer at an early stage: watch and wait, or treat.

“We are all well aware that when — not if — earlier detection is achieved, it may present patients with a further dilemma: whether or not to opt for treatment that can be severe at a point when no one can be sure the cancer is likely to grow rapidly,” Dr Burke says.

The problem is also that doctors are trained “not to do nothing”, he says.

Owen Nosworthy, specialist physician and medical oncologist at Wits’ Donald Gordon Medical Centre in Johannesburg, says any change in the definition of cancer should follow a consensus meeting with pathology societies first, as this is where the diagnosis is first made. Thereafter, pathologists would need adequate technologies to make the call on whether a lesion is likely to become cancer or not.

“It would need to be implemented extremely carefully so as to not miss lesions that would potentially become cancerous,” he says.

Technologies and techniques do not yet allow doctors to make these distinctions. Until then, “it would be almost negligent not to treat these conditions”.

In his experience, few patients are treated unnecessarily, as there are strict protocols laid down by oncology societies. In the few cases where patients are treated unnecessarily, it is often motivated by the increasing trend towards litigation.

“Doctors are often scared of being sued if they do not treat a cancer aggressively,” Dr Nosworthy says.

The era is rapidly approaching where cancer treatment will be personalised, he says, but at present this is only the case for a few cancers.

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