

# Sequential oncological therapy and delays in oncological diagnostics and treatment



*Karolina Skóra*  
*Independent researcher*

## ABSTRACT

One of the causes behind the low recovery rate among oncological patients is late diagnosis and delayed treatment. To a large extent it stems from the limited access to standard diagnostic methods, and from the extended waiting time for medical treatment. Delayed diagnosis or commencement of therapy might be patient-related, doctor-related, or might have more to do with the organization of the healthcare system. It would appear that the greatest problem in Poland is the system-related delay. Studies have demonstrated that delayed treatment might have a significant impact on patient survival. Poor health education of the society, lack of comprehensive treatment, and queues for medical care that patients come across virtually at all treatment stages result in neoplastic diseases being diagnosed in their advanced stage only, with delayed treatment lowering the patients' chances of complete recovery.

**KEY WORDS:** treatment delay, sequential treatment, queuing for medical care, oncological patients, patient-related delay, healthcare practitioner-related delay, delay through organizational issues

## INTRODUCTION

Malignant tumours are one of the most serious threats to the lives of Poles these days. In 2010, according to the National Cancer Registry in Poland [1], 140.5 thousand new cases of malignant neoplasm were registered in the country. In the very same year, 93 thousand cancer-related deaths were reported, with the morbidity/mortality index amounting to 1.5 in 2010. Thus, it can be assumed that those diagnosed with a malignant disease in a given year stand a very high chance of dying of cancer in that same year. It is also worth emphasising that cancer-related mortality in Poland is higher than the European Union average by nearly 20% in male patients, and nearly 10% in women.

One of the causes behind the low recovery rate among oncological patients is late diagnosis and delayed treatment. To a large extent it stems from the limited access to standard diagnostic methods, and from the extended waiting time for medical care. Unfortunately, Polish patients with diagnosed cancer still wait too long for treatment.

Health education and organization of screening tests aimed at an early cancer detection is extremely important, when fighting for patient health. Unfortunately, the frequently long waiting time for examinations that are to confirm initial diagnosis or determine the stage of the disease, following a screening test, and eventually the long waiting time before the treatment is initiated result in mispending the funds earmarked for education and early detection, as patients receive the necessary treatment too late.

Studies demonstrate that delayed diagnosis might have a significant impact not only on patient survival, but also their quality of life, related to stress, and the need of undergoing a more toxic therapy [2].

There are many causes behind delaying diagnosis and treatment initiation, with some of them related to patients themselves, and others related to healthcare practitioners, and to the organization of the entire healthcare system.

## PATIENT-RELATED DELAY

It is the period which lapses from when the patient notices the first disease symptoms until the time of setting a doctor's appointment. It is intentional that the limit has been defined as the time of setting the appointment, as there are queues for medical benefits in the Polish public healthcare system. Inasmuch as one does not need to wait long for an appointment with a GP, the waiting time for a specialist consultation might prove a significant limitation for the patient [3]. The majority of neoplastic diseases do give worrying symptoms (e.g. 80% of the breast cancer and prostate cancer cases) [4]. However, the

symptoms may be similar to those presented by other, less serious conditions.

Ignoring symptoms is what prevails among the reasons behind patient-related delays [2, 5]. Numerous studies have demonstrated that patient fear of being diagnosed with cancer is also of significance here [2]. A yet another, important cause of delay is the application of non-conventional treatment methods [5].

It is difficult to estimate how long exactly the patient-related delay is. The data on the subject is not unambiguous. A study of 2005, concerning oncological patients, indicated that the mean patient-related delay was 8.6 months [5]. Another study, published in 2013, demonstrated that Polish patients saw a doctor 3.6 weeks after they had observed the first symptoms of cancer. The discrepancies most probably stem from different study methodologies, and divergent definitions of "patient-related delay." The latter of the above was based on the assumption that patient-related delay was none, provided that the disease was detected during mammography examination or while seeing a doctor [6]. We can be certain, though, that the delay is there, and that for various reasons patients do not see their doctors right away.

Alarmingly, the study conducted among Polish patients has shown that over half of them (57.7%) were suffering from advanced cancer at the time of their medical appointment [5].

## HEALTHCARE PRACTITIONER DELAY

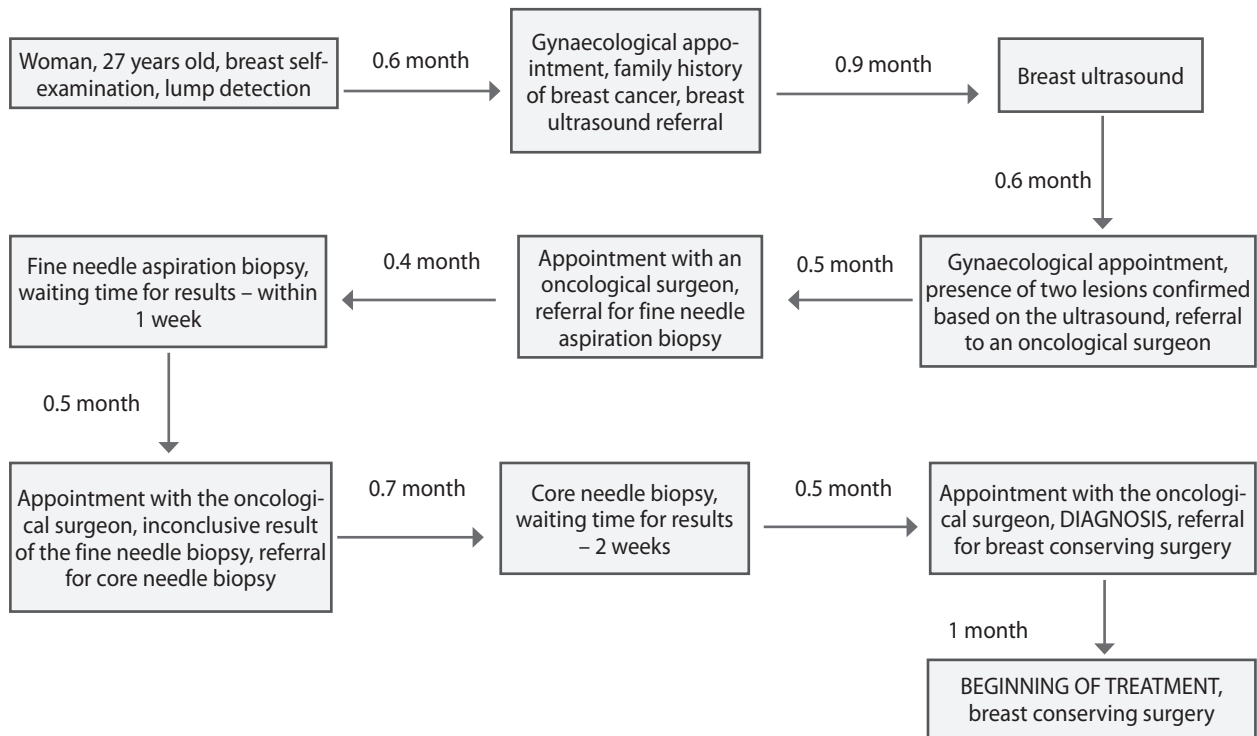
It is usually related to misdiagnosis, and an insufficient or inaccurate patient examination [7]. Studies demonstrate that patients who have had no contact with general practitioners (those participating in screening tests or making a direct appointment with a specialist doctor) are diagnosed more quickly than those who see their GPs first [8]. It is of significance, as in Poland the rate of participation in cancer screening tests is still low. Moreover, the above mentioned study conducted among Polish patients has demonstrated that those alarmed with the disease symptoms tend to report them to their GPs, with only 6.5% of the patients making a direct appointment with an oncologist [5].

## SYSTEM-RELATED DELAY

System-related delay in Poland mainly results from the sequential nature of treatment, waiting time for medical care, and waiting time for the results of diagnostic tests. A sample path of an oncological patient has been presented in Figure 1.

In the case presented above, **5 months** had passed before the **diagnosis** was made, and **over half a year** before the **treatment** was initiated. If we assume that the patient detects the lump,

FIGURE 1.  
Breast cancer patient's path to beginning of treatment



when the tumour is already advanced, there is a considerable risk of worsened prognosis. Moreover, the patient will need to wait for every consecutive follow-up appointment. If so it happens that there is cancer relapse, the patient will need to wait ca. 3 weeks for **total mastectomy**. If, on the other hand, the patient will wish to have her **breast reconstructed**, the **waiting time** will amount to **one year** at the least. It is worth noting here that the diagram above does not include patient-related delay, and presents the mean waiting times for the selected medical benefits. In some healthcare centres, patients are made to wait for medical care much longer than in the above example [3].

In the case of prostate cancer, the situation may be even worse. Once the patient notices some alarming symptoms (e.g. dysuria, pollakiuria), they need to make an appointment with a GP first in order to receive a referral to a urologist within the public healthcare system. Presently, the average waiting time for a urologic appointment is 3.8 months. Prostate biopsy waiting time is around 1 month, and one has to wait for 0.9 month for radical prostatectomy [3].

One of the methods of treating cancer is oncological radiotherapy. Studies point to the fact that ca. 45–55% of patients should undergo radiotherapy [9], and 20–25% of them are in need of repeated courses of the treatment [10]. Data presented by the na-

tional consultant in the field of oncological radiotherapy during an oncological conference (25 November, 2013, “2013 Oncology – Success and Failure, and Plans for the Future”) demonstrate that the average waiting time for radiotherapy in Poland of 2012 was 4–5 weeks. According to the recent data collected by the *Watch Health Care* Foundation in 2014, patients wait for 0.4 month for brachytherapy, 0.7 month for adjuvant radiotherapy in breast cancer, and an average of 0.9 month for palliative radiotherapy, but in some clinics patients wait for up to 3.6 months for it [3].

## BRITISH STANDARDS CONCERNING THE MAXIMUM WAITING TIMES FOR ONCOLOGICAL PATIENTS [11]

Maximum waiting times for medical care for oncological patients:

- a maximum of 2 weeks of waiting in between an appointment with a GP (urgent case – suspicion of cancer) and specialist consultation
- a maximum of 31 days (one month) of waiting from the time of diagnosis until the beginning of treatment (concerns all types of malignant neoplasms)

- a maximum of 62 days (2 months) of waiting from the time of a GP appointment until the beginning of treatment (concerns all types of malignant neoplasms).

90% of cases should stay within the above mentioned ranges. The ranges are adhered to in Great Britain at the national level [12], and the standards are not particularly demanding as compared with the other EU member states. Unfortunately, in Poland, a large group of patients remains outside of the indicated ranges.

## CONSEQUENCES OF DELAYED ACCESS TO DIAGNOSTICS AND TREATMENT

For breast cancer patients, if the period which lapses from the detection of the first disease symptoms until the beginning of treatment is longer than 3 months, it significantly impacts disease progression, and reduces the probability of 5-year survival [13]. Studies carried out among breast cancer patients have demonstrated that a long diagnosis-to-start-of-treatment waiting time is also of considerable impact on patient survival [14, 15]. Advanced breast cancer patients who wait for treatment longer than 60 days face a significantly higher risk of death than those women who begin their therapy shortly after the diagnosis. As compared with the women who did not have to wait so long, treatment delays among patients suffering from advanced breast cancer were associated with a higher risk of cancer-related death (by 85%), and a higher overall risk of death (by 66%) [15]. Additionally, the longer the waiting time for radiotherapy, the higher the risk of cancer progression. Cancer progression may in turn translate into lower patient survival in some clinical situations [16]. Hence, the waiting time for radiotherapy should be kept as short as possible.

## SUMMARY

Early detection of cancer, and prompt initiation of treatment have a considerable impact on the later survival indices. A diag-

nosis made too late might deprive the patient of the chance of an early treatment, and at times lead to a situation, where palliative care remains the only possibility.

The situation in Poland deviates from European standards, condemning patients to considerable delays as regards oncological medical care, which is not without influence on disease prognosis and patient quality of life. It would appear that system-related delay is the greatest problem in Poland. Patients are still made to wait for the basic specialist procedures, and initiation of treatment. Even though the waiting times in oncology are shorter than in other medical disciplines [3], taking into consideration the nature of neoplastic diseases, it has to be stated that delayed access to some of the basic medical benefits (affecting accurate diagnosis), and the resulting delayed treatment may constitute a negative prognostic factor, and in extreme cases even shatter the patient's chance of survival whatsoever.

There are still too few medical centres offering comprehensive oncological treatment in Poland. Moreover, due to the restrictions imposed on oncological care, patients are made to wait for their medical benefits even in the chief cancer care facilities. Additionally, the distance of several hundred kilometres away from one's dwelling place sometimes proves an insuperable barrier.

Poor health education of the society, lack of comprehensive treatment, and queues for medical care that patients come across virtually at all treatment stages result in neoplastic diseases being diagnosed in their advanced stage only, with delayed treatment lowering the patients' chances of complete recovery.

The above presented conclusions should prompt the decision-makers to undertake an efficient reorganization of the healthcare system, and manage the basket of guaranteed benefits more efficiently. In the light of the current medical knowledge, queues for oncological care that exceed the time of 60 days increase patient mortality rates. Unfortunately, poor knowledge on the issue of disease prevention, and limited access to diagnostic and treatment methods all mean that cancer patients in Poland are far behind many other European states.

## References

1. Krajowy Rejestr Nowotworów (KRN; National Cancer Registry). [online: <http://onkologia.org.pl/>] (access: February 2014).
2. Royal College of General Practitioners. Delayed diagnosis of cancer; thematic review. 2010.
3. Fundacja Watch Health Care (WHC). [online: <http://www.korektorzdrowia.pl/barometr>] (access: February 2014).
4. Hamilton W: Five misconceptions in cancer diagnosis. *Br J Gen Pract* 2009; 59(563): 441-5.
5. Pawlicki M, Michalczyk A: Badania przyczyn opóźnień leczenia chorych na nowotwory złośliwe (English: Studies on the Causes Behind Treatment Delays in Oncological Patients). *Współczesna Onkologia* 2005; 9(5): 191-195.

6. Jassem J, Ozmen V, Bacanu F, Drobnieni M: Delays in diagnosis and treatment of breast cancer: a multinational analysis. *Eur J Public Health* 2013 [online: doi: 10.1093/eurpub/ckt131].
7. Mitchell E, Macdonald S, Campbell N. et al. Influences on pre-hospital delay in the diagnosis of colorectal cancer: a systematic review. *Br J Cancer* 2008; 98(1): 60-70.
8. Allgar V.L., Neal R.D.: Delays in the diagnosis of six cancers: analysis of data from the National Survey of NHS Patients: *Cancer Br J Cancer* 2005; 92(11): 1959-70.
9. Slotman BJ, Cottier B., Bentzen SM et al. Overview of national guidelines for infrastructure and staffing of radiotherapy. ESTRO-QUARTS: work package 1. *Radiother Oncol* 2005; 75(3): 349-54.
10. Delaney G, Jacob S, Featherstone C, Barton M: The role of radiotherapy in cancer treatment: estimating optimal utilization from a review of evidence-based clinical guidelines. *Cancer* 2005; 104(6): 1129-37.
11. The NHS Cancer plan: a plan for investment, a plan for reform. Department of Health. 2010.
12. Department of Health Cancer Policy Team. Review of waiting times standards. London 2011.
13. Richards MA, Westcombe AM, Love SB et al. Influence of delay on survival in patients with breast cancer: a systematic review. *Lancet* 1999; 353(9159): 1119-26.
14. Smith EC, Ziogas A, Anton-Culver H: Delay in surgical treatment and survival after breast cancer diagnosis in young women by race/ethnicity. *JAMA Surg* 2013; 148(6): 516-23.
15. McLaughlin J, Anderson R, Ferketich A et al. Effect on Survival of Longer Intervals Between Confirmed Diagnosis and Treatment Initiation Among Low-Income Women With Breast Cancer *J Clin Oncol* 2012; 30(36): 4493-500.
16. Chen Z, King W, Pearcey R et al: The relationship between waiting time for radiotherapy and clinical outcomes: A systematic review of the literature. *Radiotherapy and Oncology*. 2007: p. 3-16.
17. RCGP RCoGP. Delayed diagnosis of cancer; thematic review. 2010.

**Correspondence:**

Karolina Skóra  
e-mail: karolina.skora@o2.pl