

Medical and Social Reasoning of Improvement of Oncogynecological Diseases` Prevention System Management

Medyczne i społeczne uzasadnienie poprawy zarządzania systemem prewencji chorób onkoginekologicznych

DOI: 10.36740/ABAL202202113

Andriana M. Kostenko¹, Victoriia O. Yasenok¹, Nina D. Svitailo¹, Olga I. Smiianova¹, Yulia M. Savelieva¹, Lesia A. Rudenko²

¹Sumy State University, Sumy, Ukraine

²Aluna Publishing House, Konstancin-Jeziorna, Poland

SUMMARY

Aim: To analyze the dynamics of oncogynecological morbidity level in Sumy region and to identify barriers for prevention and early diagnosis of oncogynecological diseases in women.

Materials and Methods: study structure included: desk study (collection and analysis of statistical data), medical and sociological research on definition of barriers for prevention and early detection of oncogynecological diseases on the basis of primary medical level, which was conducted by questioning among women of Sumy region with an anonymous questionnaire with subsequent statistical processing of data using the license package of programs "PSQ" (processing of sociological questionnaires), a computer program of primary sociological information analysis.

Results: in the process of analyzing the dynamics of morbidity, mortality, annual mortality and neglect of diseases of oncopathology, a decreasing in the rate of morbidity was found with simultaneous increasing of annual mortality and neglect, which highlights a decrease in carrying out preventive examinations in women. This, in turn, worsens the possibility of diagnosis of gynecological oncopathology at the early stages and their prevention.

Conclusions: this requires development of a set of measures that would provide maximum coverage of regular gynecological preventive examinations in women. This mechanism can be effectively implemented through involvement the territorial communities in the process.

Key words: healthy lifestyle, quality of medical care, gynecologic oncology pathologies` prevention

Słowa kluczowe: zdrowy styl życia, jakość opieki medycznej, profilaktyka chorób ginekologiczno-onkologicznych

Acta Balneol, TOM LXIV, Nr 2(168);2022:171-177

INTRODUCTION

Cancer is second most common cause of mortality in the world following the cardiovascular diseases. In Ukraine, cancer is among five main causes of mortality. Among European countries, Ukraine ranks 2nd place in terms of cancer prevalence (with an annual increase about 3%) [1, 2]. In general ranking of mortality from the most common forms of malignant neoplasms, oncopathologies of female reproductive organs (cancer of the mammary glands, stomach, colon, rectum, ovary, cervix equal) take one of the main places and equal 57.6% [3]. The incidence of malignant neoplasms is of a great social-economic importance, since it leads to premature mortality and disability in female population, significant economic

losses due to direct and indirect costs associated with this pathology [4, 5].

Taking into account the high mortality from cancer in Ukrainian women, it is considerable to implement a comprehensive approach to measures, related to the prevention and early diagnosis of oncogynecological pathology. It is proved the earlier diagnosis is made, the more successful the treatment is and the more favorable the prognosis is done. Thus, survival in case of diagnosis and treatment started at 1st clinical stage of the disease is 92%, at II – 88%, at III – 42%, at IV – 13% [2].

Cancers of female reproductive system are most common in structure of oncological morbidity (37%). As a cause of death, malignant tumors of female genitals occupy the second place; and in women of working age – the first one. These losses are

of social importance at the national level, negatively affecting the demographic situation, since women of reproductive age (15-49 years) make up almost a third of the total number of cancer patients – 27.5% [6].

The mortality rate associated with cancer in Sumy region women was: 2018 – 87.5%, 2019 – 89,1%. The number of deaths from malignant cervical neoplasm at the age of 30-59 years per 1000 women of the corresponding age in 2018 was 0.08 cases, in 2019 – 0.1 cases, in 2020 – 0.07 cases. According to the Sumy Regional Oncology Dispensary in 2020, there was a decreasing neglect during the diagnosis of uterine cancer from 2.8 to 1.2% (Ukraine – 3.9%), increasing of neglect in cervical cancer diagnosis from 11.82% to 20% (Ukraine – 25.5%) and in case of ovarian cancer diagnosis – from 11.2 to 15.4% (Ukraine – 15.8%) in region. The level of coverage of cytological examination with oncology examinations in 2020 decreased by 35.6% and equaled 31.6% of the planned index (in 2019 – 67.2%).

Most cases of cancer can be prevented by vaccination against human papillomavirus. At the same time, it should be noted that early diagnosis significantly increases chances of successful treatment.

AIM

The aim of the study is to analyze the dynamics of oncogynecological morbidity level in Sumy region and to identify barriers for prevention and early diagnosis of oncogynecological diseases in women.

MATERIALS AND METHODS

Study structure included: desk study (collection and analysis of statistical data), medical and sociological research on definition of barriers for prevention and early detection of oncogynecological diseases on the basis of primary medical level. The second step was conducted by questioning among women of Sumy region with an anonymous questionnaire. There were 662 respondents aged 18 and above (error of representation with probability of 0.95: not more than 4%) with subsequent statistical processing of data using the license package of programs “PSQ” (processing of sociological questionnaires), a computer program of primary sociological information analysis. The field stage of the research was implemented between July 15 and August 20, 2021. At the first stage, a program and tools were developed, a sample was formed,

and a survey methodology was developed under quarantine restrictions. At the second stage, a mass population survey was conducted with a specially designed questionnaire. At the third stage, questionnaires were selected and computer processing was carried out. The research was approved by Ethics Commission of Sumy State University University, according to the European bioethics and bio-rights, Helsinki Declaration of the World Medical Association.

RESULTS

The total number of patients with first made oncogynecological diagnosis in recent 5 years is 2,113 women. From them, 167 women in Sumy region have been diagnosed with uterine body cancer, 97 – with ovarian cancer in 2020 alone, and 90 women with cervical cancer (Table 1).

Dynamics of diagnoses made for the first time in 2016-2020 for cervical cancer and uterine cancer are reduced, but this cannot be considered as general morbidity decreasing.

The ratio of morbidity, neglect and mortality indexes allows to determine the real status of oncogynecology in Sumy region. In particular, during the period of 2016-2020, the incidence of cervical cancer decreased by 20.29%; however, the annual mortality increased by 20.4%, and neglect of the disease increased by 157.15% (Table 2). One of the factors in reducing of examinations` number are quarantine restrictions, due to the Covid-19 pandemic, as a result of which a significant number of cases of morbidity was not registered, and women consulted oncogynecologists already at the stage of neglected (advanced) disease.

We also observe negative dynamics regarding ovarian cancer, the rate of which increased by 4.22%, and the rate of neglect of which increased by 54% (Table 3).

Somehow more positive is dynamics of of uterine cancer incidence (Table 4).

Thus, indicators of neglect and mortality from cervical cancer and ovarian cancer are increasing despite the fact that general incidence rate is decreasing, which may show a low level of diagnosis of these diseases at early stages.

The indicator of neglect in context of age groups in 2016-2020 (Table 5) shows that the largest number of neglected cases is found in the age groups of 45-60 years and in 60 years`.

Table 1. Cervical, uterine body and ovarian cancer morbidity dynamics in women of Sumy region, 2016–2020 yrs

Year	Number of patients		
	Cervical cancer	Uterine body cancer	Ovarian cancer
2016	117	214	96
2017	117	233	91
2018	127	206	110
2019	110	233	105
2020	90	167	97
Increase rate, 2020/2016 yrs, %	-23,08	-21,96	1,04

The data from Table 6 demonstrate that the biggest number of women with oncogynecological pathology is recorded in over 60 age group, which may be associated with decreasing attention to their health and late searching for medical help in women of retirement age.

While studying the dynamics of preventive examinations coverage, it was found that in 2020 this index has decreased, which negatively affected detection of new cases. Thus, coverage of oncological preventive examinations with cytological test in 2020, had decreased by 2.5 times, compared to 2016. Also,

Table 2. Cervical cancer index dynamics in 2016–2020 yrs

Index (data)	2016	2017	2018	2019	2020	Increase rate, %
Morbidity, per 100 000	20,7	19,6	22,8	19,7	16,5	-20,29
Mortality, per 100 000	8,5	7,5	8,1	10,3	7,1	-16,47
Annual lethality, %	9,8	7,7	9,3	7,9	11,8	20,41
Neglection, %	5,6	6,0	5,2	11,82	20	157,15

Table 3. Ovarian cancer dynamics, 2016–2020 yrs

Index	2016	2017	2018	2019	2020	Increase rate, %
Morbidity, per 100 000	16,6	16,1	20,0	19,9	17,3	4,22
Mortality, per 100 000	10,1	10,0	9,6	7,9	9,0	-10,89
Annual lethality, %	28	22,9	14,3	20,0	14,2	-49,28
Neglection, %	10,0	9,4	13,6	11,2	15,4	54,00

Table 4. Uterine body cancer dynamics, 2016–2020 yrs

Index	2016	2017	2018	2019	2020	Increase rate, %
Morbidity, per 100 000	38,0	42,3	36,5	42,5	30,9	-18,68
Mortality, per 100 000	11,6	10,9	10,7	8,7	8,7	-25,00
Annual lethality, %	9,0	13,1	7,7	6,3	5,6	-37,77
Neglection, %	2,6	1,2	2,8	2,8	1,2	-53,84

Table 5. Pathologies` neglect indexes dynamics in different age groups, 2016–2020 yrs., %

Age group		0-15	15-30	30-45	45-60	Older 60
2016	Cervical cancer	-	0	3,8	5,4	6
	Uterine cancer	-	-	0	6,8	0,7
	Ovarian cancer	-	0	20	7,9	11,1
2017	Cervical cancer	-	-	6,5	6,3	5,3
	Uterine cancer	-	-	0	0	1,4
	Ovarian cancer	0	0	0	10,7	12,8
2018	Cervical cancer	-	0	0	8,6	0
	Uterine cancer	-	0	0	3,5	2,8
	Ovarian cancer	-	0	7,7	7,9	20,7
2019	Cervical cancer	-	0	12	19,6	2,6
	Uterine cancer	-	-	7,7	4	2,1
	Ovarian cancer	-	0	0	6,9	19,2
2020	Cervical cancer	-	-	19	15,4	26,7
	Uterine cancer	-	-	0	2,3	0,8
	Ovarian cancer	-	0	0	16	18,3

Table 6. Number of women with oncogynecological diseases in different age groups, 2020 year

Age group	Rate of patients, (number,%)		
	Cervical cancer	Uterine cancer	Ovarian cancer
0–15	0	0	0
15–30	1 (1,1%)	0	4 (4%)
30–45	21 (22,1%)	4 (2,2%)	8 (8%)
45–60	40 (42,1%)	46 (25,8%)	25 (25%)
Over 60	33 (34,7%)	128 (71,9%)	63 (63%)
Total	95 (100 %)	178 (100 %)	100 (100 %)

Table 7. Dynamics of preventive examinations vs number of patients in 2016–2020 yrs

Index	2016	2017	2018	2019	2020	Increase rate,%, 2020/2016
Total of oncological patients diagnosed during examinations	186	178	202	212	169	-9,14
Total of oncological patients with first time diagnosed cancer	427	441	443	448	354	-17,10
Number of preventive examinations (cytological test)	417857	403564	384060	341644	159338	-61,87
Number of women to be examined	517871	513358	513358	508111	504737	-2,54

the total number of cancer patients detected during preventive examinations decreased by 9.14%; the total number of cancer patients, who were diagnosed with cancer for the first time, decreased by 17.10%; the number of preventive examinations (cytologically tested) decreased by 61.87%; the proportion of cancer patients detected during examinations increased by 9.6% (Table 7).

Data analysis indicates a decreasing in coverage of oncologies' preventive examinations with cytological test during the 2016–2020 years, both in Sumy and region. So, in 2020, only one out of three women (31, 0% and 31.6% respectively) underwent cytological examination. Therefore, such a low level of prevention does not allow in-time detection of precancerous conditions or tumors at early stages.

Thus, in the process of analyzing the dynamics of morbidity, mortality, annual mortality and neglect of diseases of oncopathology, a decreasing in the rate of morbidity was found with simultaneous increasing of annual mortality and neglect, which highlights a decrease in carrying out preventive examinations in women. This, in turn, worsens the possibility of diagnosis of gynecological oncopathology at the early stages and their prevention.

As a result of a mass survey among female population of the region, barriers to the prevention and early detection of oncogynecological diseases were found and evaluated. In total, 662 women participated in the survey, which is sufficient to reflect the general situation and trends. In them, 26.9% aged 18–29 years, 34.6% aged 30–49 years, 20.5% – 50–64 years and 18% were older than 65 years. Among the women surveyed, 11.6% live in the village, 8.5% – in urban-type village, 45.5% – in towns, 34.4% live in the regional center. As a result, the

survey found that about half of rural residents (52.7%) do not visit their family doctor for preventive procedures (in case of absence of disease's signs); yet, this percentage is much higher among women who live in the regional center (69.3%). In general, every second woman (55.9%) does not visit her family doctor for prevention if absence of complaints. As a result, the incidence of oncogynecological pathologies in Sumy region has been increasing over past 5 years. According to statistical data of the Sumy Oncological Dispensary, women are mainly treated at 2–3 stages of the disease (about 90% of cases), less – at 1st and 4th stages (7–10%). It should also be noted that oncogynecological diseases are commonly found in women after 30 years. Thus, the issue of oncogynecological preventive examinations is extremely important.

Mostly, women undergo preventive gynecological examinations, consulting a gynecologist (70.1%), 9.5% – a family doctor and 2% consulting an obstetrician. Almost a fifth of the women surveyed do not consult the doctors for preventive gynecological examinations.

Analyzing this issue in a context of age, it was found that 40.3% of elderly women (65 years and older) do not contact medical specialists to prevent and early diagnose the oncogynecological diseases at all.

When choosing a gynecologist, women are most often guided by professionalism (66%) and attentiveness (43.1%) from a specialist, in particular, his attention to prevention of gynecological diseases (20.8%).

Having the ability to specify several options, still not many respondents (6.6%–7.3%) were guided by the cost-free and speed of examination. However, almost one out of five women are forced to choose a gynecologist, orienting

on place of residence proximity. It is also noteworthy that 13% are women noted they do not have a gynecologist to contact with at all.

The professionalism and attentiveness of a specialist are more often pointed out by women aged 18 to 29 years; and women at the age of 50 to 64 years likely chose specialists who are closer to their place of residence (25% of all respondents). Women over 65 years prevail among those who are looking for a free gynecologist, are indifferent to any criteria, or do not have a specialist of this profile at all.

As a result of survey analysis, it was found that only 60% of women regularly undergo preventive gynecological examinations. Most of the respondents visit gynecologist only once a year (46.8%). 13.4% of respondents consult the specialist twice a year; the same rate is among those who visit the specialist once every two years. While 13.6% do not have examinations at all, about 26% undergo it irregularly or only if necessary (0.6%).

Table 8 allows to analyze questions in detail, depending on age of respondents. More conscious in this matter were women aged 18-29 years, they consult a gynecologist with a frequency of 1-2 times per year. There is a certain pattern present: the older the woman is, the less she consults the specialists or does not attend consultations at all.

By analyzing the frequency of women's gynecological examinations depending on their place of residence, it was found that women from villages and settlements were less likely to visit gynecologist. Respondents from towns visit gynecologist more often than others: twice a year (16.6%). 50.4% of residents from regional center consult a gynecologist at least once a year (Table 9).

Therefore, the farness of the medical institution from the place of residence significantly reduces the frequency of visiting a gynecologist, especially in the villages.

About half of the respondents (47.9%) noted that they visited a gynecologist for prevention procedures, and 6% –

namely for oncoprophylaxis. In this issue, certain differences in views of the surveyed women and gynecologists were revealed. Doctors emphasize that the majority of women's appeals are still recorded with complaints and for medical purposes, yet not for preventive examinations. It was also found that young women aged 18 to 29 years (59.6%) are main visitors for gynecologists, searching for prevention. Respondents older than 65 years often indicate that they visit a gynecologist for the diagnosis of diseases (15.1%) and for oncoprophylaxis (10.1%). In the same group, the most identified are those who do not undergo gynecological examinations at all (36.1%).

Most women (71%) note that gynecologists pay attention to prevention during examination, emphasizing the importance of attending regular preventive gynecological examinations. More often, this variant of the answer is indicated by younger women: of the age under 30 (78.9%) and under 50 (78.6%). Older women are more likely to note that the issues of prevention during the examination are not discussed. In addition, representatives of this age group occupy a "leading" position among those who do not undergo preventive gynecological examinations at all.

Therefore, it should be noted that from 12 to 16% of the surveyed women do not undergo gynecological examinations and do not visit a gynecologist for preventive purposes. One of the tasks was to find out the causes of this phenomenon. The majority of women (70.5%) answered that they were undergoing gynecological examinations, thus, 100% included those who did not undergo examinations for some reason. Most of those who do not visit gynecologist note such reason as feeling healthy enough (21.7%), although this does not justify the fact that they are not engaged in disease prevention. Another 15.7% feel discomfort during gynecological examination, 10.2% prefer self-treatment. All other women indicate following reasons: they do not have time for preventive examinations, it is difficult to get to the specialist or even to get appointment,

Table 8. Frequency of gynecological examinations (depending on age), %

	Twice a year	Once a year	Once per two years	Less than once per two years	Do not attend gynecological examinations	Attend only if needed
18-29 y.o.	24,2	57,3	9,6	4,5	4,5	0
30-49 y.o.	16,6	51,1	13,1	10	8,3	0,9
50-64 y.o.	5,9	44,9	22,8	11	14,7	0,7
65 y.o. and over	0	25,2	14,3	23,5	36,1	0,8

Table 9. Frequency of gynecological examinations (depending on place of residence), %

	Twice a year	Once a year	Once per two years	Less than once per two years	Do not attend gynecological examinations	Attend only if needed
Village	14,3	41,6	15,6	9,1	18,2	1,3
Settlement	8,9	48,2	14,3	12,5	16,1	0
Town (not regional center)	16,6	45,2	14,6	10,3	12,3	1
Regional center (city)	10,1	50,4	13,6	12,7	13,2	0

an inconvenient schedule or a high cost of services that do not always depend on the women themselves.

Analyzing this issue in perspective of age-related aspect, it was found that women of younger age are more likely to undergo gynecological examinations, and women aged 30-49 years often do not have free time and complain about uncomfortable schedule. Respondents aged 50-64 more often indicate the “lack of information about possibility of undergoing a gynecological examination”. And those who are older than 65 years, either prefer self-treatment, or consider themselves healthy (Table 10).

Women from Sumy more often, compared to other respondents do not have a gynecologist to consult (21.8%) or they find it difficult to make an appointment with a doctor through queues (14.9%). Respondents from Sumy district complain of discomfort during gynecological examinations (31.4%), and, therefore, prefer self-treatment (23.5%). Most often women from villages complain of difficulties to get to the doctor (28.6% both), as well as of the high cost of such a procedure. Residents of the regional center do not have enough time and undergo difficulties with appointment, cause of large queues.

DISCUSSION

So, in most cases, it is low awareness in women about the need to undergo examinations and opportunities for medical care at the primary level of healthcare (“Lack of information on statistics of the disease prevalence, prevention, vaccination, lack of educational work”) is the main barrier for regular preventive gynecological examinations.

Through questioning, what needs to be changed, so that women would regularly undergo gynecological examinations, the following results were found: 15.3% of women surveyed consider the main factor an information spreading (this point is more often chosen by women under the age of 30); 13.6% underline the need of simplification of the procedure of appointment; 12.1% emphasize that attending a preventive gynecological examination should be reminded by a family physician (a popular option among women older than 65 years) and 5% propose to change the schedule of specialists.

Therefore, it is necessary to increase public awareness on prevention of oncogynecological diseases, in particular, regarding vaccination against cervical cancer. It is also necessary to change the work schedule of gynecologists and family physicians to prioritise a few hours of work only for communication on prevention of oncology in women. In addition, it is necessary to attract local, district radio, television, Internet resources, insurance medicine for cooperation.

In women from villages it is extremely important to change the schedule of specialist work, and for women from small towns – to simplify the appointment procedure. For the surveyed women from the regional center, it is important to get more information on need to attend the examination and get reminds from the family physician.

Recognizing that not all women understand the risks and importance of preventive examinations, experts note that there is a need in information that would be provided in a language that is understandable to the population. The most accessible channel is Internet networks, in districts – local radio and television, conversations with teenagers on the culture of sex life, with parents on vaccination against human papillomavirus. Special attention to examinations should be paid by family doctors, who direct patients, sending mailings-reminders about preventive examination by phone.

CONCLUSIONS

1. Analysis of coverage level of gynecological preventive examinations with cytological test during 2016-2020 years indicates a decreasing in women both in Sumy and in Sumy region. Special attention is required to decreasing of the level of oncological preventive examinations with cytological test in 2020, compared to 2016 in the region (2,5 times). Indeed, in 2020 only one in three women underwent oncogynecological preventive examination with cytological test.
2. Low level of preventive examinations does not allow to detect precancerous conditions or cancer tumors at early stages. In the process of analyzing the dynamics of mor-

Table 10. Reasons, why women do not attend the gynecological preventive examinations,(age-related), %

	18-29 y.o.	30-49 y.o.	50-64 y.o.	65 y.o. and over
Do not have a gynecologist to consult	12,8	14,7	13,6	13,1
A specialist is not easily accessible	10,3	4	11,4	11,5
Difficult to visit gynecologist as there are big queues	10,3	4	6,8	14,8
Uncomfortable working schedule	20,5	18,7	15,9	3,3
Not enough information on possibility to attend gynecological examination	10,3	2,7	15,9	13,1
Feeling discomfort during it	23,1	21,3	18,2	31,1
Do not have enough time	15,4	26,7	18,2	11,5
Examination is too expensive	10,3	5,3	6,8	3,3
I prefer self-treatment	5,1	10,7	11,4	31,1
Consider myself healthy	43,6	25,3	36,4	32,8

idity, mortality, annual mortality and neglect of onco-pathology diseases one may see a decreasing in the rate of morbidity. However, we found the simultaneous increasing in general annual mortality and neglect indexes, which is directly related to the decreasing in coverage by preventive examinations in women, which, in turn, adversely affects the detection of new cases of cancer and their prevention.

3. This requires development of a set of measures that would provide maximum coverage of regular gynecological preventive examinations in women. This mechanism can be effectively implemented through involvement the territorial communities in the process.

References

1. Ukraine ranks second in Europe in the rate of cancer]. 2021. <https://www.ukrinform.ua/rubric-society/3041172-ukraina-na-drugomu-misci-uevropi-za-tempami-posirenna-raku-moz.html>. date access 13.10.2021] (in Ukrainian)
2. Shapochka D. Hereditary cancer of breast and ovary: the importance of diagnosis for prevention and treatment. *Oncologija*. 2020; 3: 8–9. (in Ukrainian)
3. Public Health Center of Ukraine. 2019. <https://phc.org.ua/news/u-2019-roci-novoutvorenniya-stali-drugoyu-naychastishoyu-prichinoyu-smerti-ukrainciv-visnovki-z> [date access 13.10.2021] (in Ukrainian).
4. Updated risk factors in oncology. *Vashe zdorov'ya*. 2019. <https://www.vz.kiev.ua/onovleni-factory-ryzku-v-onkologiyi/> [date access 13.10.2021] (in Ukrainian).
5. Fedorenko ZP, Mykhaylovych YuY, Hulak LO et al. Cancer in Ukraine, 2019–2020. Morbidity, mortality, performance of the oncology service. *Byuleten' Natsional'noho kantser-reyestru Ukrayiny*. Kyiv. 2021, 120p. (in Ukrainian)
6. Romaniv MP. Medical and statistical assessment of sex-age structure of morbidity and mortality from cancer in Ukraine. *Visnyk naukovykh doslidzhen'*. 2017;1:85–90. (in Ukrainian)

Conflict of interest:

The Authors declare no conflict of interest

Received: 25.06.2021

Accepted: 20.12.2021

ADDRESS FOR CORRESPONDENCE:

Viktoriiia O. Yasenok

Sumy State University
2 Rimskogo-Korsakova st., 40000 Sumy, Ukraine
tel: +380669027860
e-mail: v.kurganskaya@med.sumdu.edu.ua

ORCID ID and AUTHORS CONTRIBUTION

0000-0002-8970-4244 – Andriana M. Kostenko (B,C)
0000-0003-3250-2112 – Viktoriiia O. Yasenok (D, E)
0000-0002-4944-1064 – Nina D. Svitailo (A, F)
0000-0001-5823-924X – Olga I. Smiianova (B,C)
0000-0001-8981-5465 – Yulia M. Savelieva (A, B)
0000-0003-0556-8263 – Lesia A. Rudenko (E, F)

A – Research concept and design, B – Collection and/or assembly of data, C – Data analysis and interpretation, D – Writing the article, E – Critical review of the article, F – Final approval of article

Info

OVER 40 YEARS OF EXPERIENCE IN CRYOTHERAPY AND CRYOSURGERY

We are the industry leader in cryotherapy and cryosurgery devices. We supply certified and tested equipment that uses liquid nitrogen. Having originated from the COTM (Central Laboratory of Medical Technology), we have been operating on the market for almost 40 years. We have won numerous awards and distinctions.

Our devices can be found in the best Polish and foreign clinics. They are used in treatment of numerous dermatological, gynaecological and oncological diseases.

Our products are also used in a lot of rehabilitation clinics, providing physiotherapy to patients with musculoskeletal disorders. Moreover, we supply equipment to beauty parlours, since positive effects of low temperatures have also been noticed in this field.

Our products are valued by doctors and physiotherapists, who can rely on their effectiveness and reliability. This is our flagship product for cryotherapy procedures. It is willingly used by professionals in rehabilitation clinics and beauty parlours.

We offer our device in three variants, depending on the capacity of liquid nitrogen tanks: 30, 50 and 15 litres.

Benefits for patients: pain relief, acceleration of metabolism, reduced inflammatory process, reduced use of anti-inflammatory and analgesic drugs, relieved skeletal muscle tension, faster regeneration and recovery, improved mobility of treated joints, speeding up recovery process, reduced swelling, reduced cellulite and firm skin.

(www.kriomedpol.pl/en/)