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Holistic Post-Heart Attack Management Persistent Dedication to Polish Citizens' Development

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Abstract

A multicomponent post-myocardial infarction protocol is critical to survival, prevention of complications, and quality of life among heart patients. The Comprehensive Care after Myocardial Infarction (CCMI) program is an investment in a long-term strategy of health care in Poland, integrating the post-hospital treatment, rehabilitation, preventive care, and further outpatient treatment. This model not only assures continuity of care, but it also enhances the likelihood of lifestyle changes and medical management accepting compliance that leads to a reduction in recurrent occurrence of cardiovascular events. CCMI simplifies the process of coordinated healthcare delivery and uniting the components of clinical outcomes with sustained patient care to increase clinical performance and optimize the utilization of healthcare resources. The program can be used as an example of other countries in Europe who are determined to enhance long-term cardiac care in their respective health systems.

Keywords: ***Community Nursing, Ethics, Patient Autonomy, Confidentiality, Informed Consent, Cultural Sensitivity, Justice, Equity of Care, Professional Responsibility, Ethical Dilemmas*.**

1.Introduction

Cardiovascular diseases (CVDs) have proven to be one of the biggest health system challenges in the world, especially in Europe whereby aging, poor lifestyles, and lack of equitable access to the modern therapies are always the leading causes of high mortality and morbidity. Ischemic heart disease has been a chronic problem in Poland, as well as in most of the other Central and Eastern European nations, and myocardial infarction (MI) is one of the most serious and resource-intensive types of its manifestation. Statistical surveys over the recent decades show both a good direction and the numerous gaps. On the one hand, the progress of invasive cardiology, the rapid evolution of hemodynamic laboratories, as well as the broader access to the percutaneous coronary intervention (PCI) have significantly decreased in-hospital mortality among acute coronary syndromes. In Poland, there was a period between 1980 and 2016, which showed a decrease in hospital mortality following MI, 22% reduced to less than 6%.10%10. Such results can be traced to wider trends in cardiology in Europe and can be seen as evidence of how life-saving can be saved with the help of investments in high-tech treatment pathways(1).

Nevertheless, this development conceals another urgent issue: the post-discharge long-term survival and quality of life in the patients are still poor. Although acute treatment of the MI was effective, close to 10 percent of the patients released after an MI in Poland succumb to death within a period of twelve months. A number of factors play leading to this appalling statistic and they include deficient compliance with pharmacotherapy, inefficient consumption of healthy lifestyles, deficient accessibility to comprehensive rehabilitation, and late or inadequate specialist follow-up care. As an example, the number of patients that were referred to structured cardiac rehabilitation programs and a small percentage of patients (3-5) accessing rehabilitation within two weeks of hospitalization were observed pre-2017. Moreover, the outpatient consultations of cardiology were in most cases greatly delayed and the median waiting time after discharge was up to four months. These structural failures underline a deeper issue: acute care infrastructure was updated, but secondary prevention and long-term care were far behind schedule, which exposed patients to frequent occurrences, complications and early mortality.

This problem is urgent as projected. The actual statistics of the state, provided by statistics Poland, suggest that without the introduction of changes to secondary prevention and chronic cardiac care, the proportion of cardiovascular diseases in the overall number of deaths in the country may exceed 50 percent by 2050. This trend poses a risk not only to the outcome of individual patients but also the national healthcare system sustainability. The expenses of recurrent hospitalization, disability and workforce productivity cost makes the public budgets heavy. The old method of addressing MI, as a discrete episode in a hospital, has not been adequate in this regard. In its place, there is a growing trend among health policy scholars and clinicians to advocate a more holistic,

ongoing approach to care that combines acute management with formalized rehabilitation, the management of risk factors and the use of long term follow-up.

It is against this background that Poland launched the Comprehensive Care after Myocardial Infarction (CCMI) programme, which in the local language is called KOS-Zawawal, in October 2017. The project was an innovative form of integrated healthcare aimed at mitigating the discontinuous post-MI care environment. By contrast to previous practice, which commonly concluded with a patient being discharged, CCMI offers a comprehensive set of services that includes diagnosis, acute invasive or conservative therapy, electrotherapy where necessary, formal cardiac rehabilitation, and a minimum of one year of expert follow-up in the outpatient setting(2). Notably, the model is based on and operationalizes the suggestions of the European Society of Cardiology (ESC) that has long insisted on the importance of combining secondary prevention interventions in an attempt to enhance long-term patient outcomes.

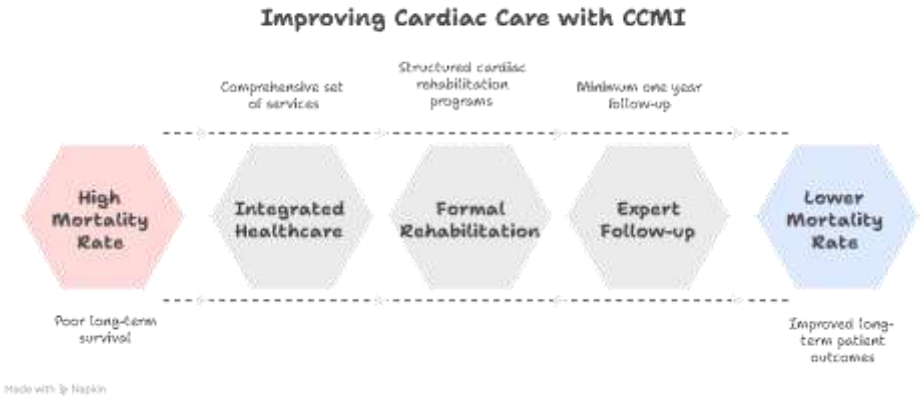

FIGURE 1 Improving Cardiac Care with CCMI

There is initial evidence of Poland that this holistic model is paying off. Early studies have indicated that involvement in CCMI lowers the chances of dying within one year of MI by almost 29 percent in comparison to those who never received productive coordinated treatment. The mortality decreases were observed to be alike in various periods, 30 days, 180 days, and 365 days after discharge. Besides, more patients registered in the CCMI were less likely to rehospitalize and more able to access necessary rehabilitative and preventive care. The results of such outcomes highlight the importance of the transition to the long-term, investment-driven paradigm of cardiovascular medicine as compared to the narrow, acute-focused paradigm.

The emergence of CCMI is also indicative of a larger trend in the health policy, namely the increasing attention to comprehensive care models as the means not just to the improvement of clinical outcomes but also to the increase in efficiency of the system(3). The programme seeks to prevent undue fragmentation by bundling services and by incentivizing the provider to provide coordinated services and ultimately reduce the overall economic cost of recurrent cardiac events by linking reimbursement to continuity and quality of care. This view redefines cardiac care as not only a cost, but an investment in population health and labor productivity.

Though these are promising results, problems are still there. The programme was not implemented evenly at its early implementation with a low initial participation rate amongst the hospitals and the patients. Others that were barriers were the complexity around administration, lack of even distribution of accredited facilities, and also uncertainties around reimbursement setups. However, the CCMI project has also provoked the essential debate in the Polish healthcare on the equity of access, patient involvement, and the relevance of preventive cardiology. In addition, the programme emphasises the urgent need to improve the linkage of the health financing mechanisms to clinical best practices.

To summarize, the implementation of the Comprehensive Care after Myocardial Infarction model is a great milestone in Egyptian approach on cardiovascular health. CCMI is able not only to help thousands of patients survive by closing the gap between acute intervention and long-term prevention but also increases the quality of life of patients. As shown in the programme, long-term investments in extensive patient-focused care can reap returns in the form of better health and in the effectiveness of health delivery. Since cardiovascular diseases remain the number-one cause of mortality not only in Poland but also worldwide, the CCMI experience can be learned by

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other health systems that need to fine-tune between innovation, cost-effectiveness, and equity in the treatment of chronic diseases.

2. The Program's Origins

The introduction of the Comprehensive Care after Myocardial Infarction (CCMI, KOS-Zawał) programme in Poland did not happen in a vacuum; it was the result of decades of accruing clinical evidence, structural failures, and the pressure of policy demands to update the way the country dealt with cardiovascular health. The origin of the program is indicative of a serious self-awareness, namely, that the life-saving act of acute management of myocardial infarction alone cannot guarantee the survival or quality of life in the long term. The only sustainable solution needed was to change the paradigm on which the management of the post-MI patients was based on, and this meant not focusing on emergency intervention and hospital discharge but rather on structured, continuous, and multidisciplinary care.

During the early 2010s a number of historic reports and professional suggestions formed the intellectual backbone of this change. A joint statement by the Polish Cardiac Society (PCS) and the Agency for Health Technology Assessment and Tariff System (AOTMiT) helped underline the idea that cardiovascular treatment could not stop at the hospital gate any longer. The evidence was strong that patients without structured rehabilitation, management of risk factors, and close outpatient supervision were much more likely to suffer recurrent infarctions, disabling complications and premature death(4). Within the framework of its analysis, published in 2013, the PCS estimated that, in case that comprehensive care was provided to half of all MI survivors, it would avert about 2,200 deaths and 15,000 hospitalizations due to cardiac causes per year in Poland. These figures displayed the inefficiency of status quo as well as the colossal prospects of reform.

This fact-based advocacy was consistent with the current trend in Europe to value secondary prevention. Comprehensive approach that integrates invasive cardiology with rehabilitation, lifestyle change, and adherence to the long-term pharmacotherapy had long been advocated by the European Society of Cardiology (ESC). In the case of Poland, this was not put into action. Post-discharge services were still fragmented despite having one of the most dense networks of hemodynamic laboratories in Europe, an achievement that transformed acute care. Rehabilitation programs were not effectively used, outpatient cardiology clinics were overstretched and preventive counseling was never provided uniformly. This disbalance led to a paradox: Poland did well at saving lives at the acute stage of the myocardial infarction, but it ended up losing many of those who survived at the weak months that followed.

Socio-economic factors were also the factor behind the creation of CCMI. Increasing acute coronary syndrome hospitalizations and their associated demographic trends of an aging population posed a threat to health care system overload. Over 40 percent of all deaths in the country were already attributed to cardiovascular disease, and, unless drastic reform was undertaken, it was projected that this could increase to well above 50 percent by mid-century. In addition to the human cost, the economic cost was devastating: frequent hospitalizations, permanent disability and loss of labor productivity strained resources of the public and curtailed national development capability. In this way, the overall cardiac care was not presented as a medical innovation only but as a planned investment in the health of the population.

The policy momentum came to a head with the publication of the AOTMiT in 2016 that analyzed the feasibility and benefits of the introduction of a coordinated post-MI care model. Their evaluation highlighted that the control of risk factors, early rehabilitation and specialist education, and regular follow-up were vital in prolonging the survival and lowering the cost of healthcare. Notably, the report has pointed out that the comprehensive care meant that all these areas had to be incorporated, namely, cardiology, nursing, physiotherapy, psychology, and dietetics, and hence the patients were not only stabilized medically but also assisted in achieving sustainable changes in their lifestyles. It was a comprehensive vision: the programme was not only about curing the sick heart, but the person is to be reinstated to working, living, and family life.

Initial concepts of the architects of CCMI were clear in the way they were going to make a clinically robust and operationally viable programme. The main goals were obvious: to ensure that MI survivors have affordable, equitable, and evidence-based access to one-year specialist-led and multidisciplinary services. In order to accomplish this, the model was constructed on a number of guiding principles:

- Continuity of Care- Making sure that the patient transition between hospital treatment and rehabilitation and outpatient supervision is smooth and without hiatus.

- Accessibility - Standardization of country-wide standards so that access to rehabilitation and specialist services would not be determined by geographic or hospital type.
- Integration of Disciplines – Involving cardiologists, physiotherapists, psychologists, dieticians, and nursing professionals in a coordinated team.
- Patient-Centeredness - Creating service that addresses the patient needs, psychosocial support and counseling, as a way to promote adherence and engagement.

Evidence-Based Policy - Making the programme align with ESC recommendations and best practices in the international community so that it is scientifically credible and sustainable over time.

Official start of CCMI in October 2017 was a historic event in Poland, in terms of healthcare. It was the first time when patients who survived an acute MI were ensured that it was not the end of the road with discharge papers in their hands but with a chance of a structured rehabilitation, monitoring, and support at the very least of 12 months. This innovation was not only conceived as a continuation of the work in hospitals, but a radically new model of organisation that redefined cardiovascular treatment as a continuum(5).

Also, the programme aimed at dealing with behavioral and social determinants of health. Adherence to pharmacotherapy, persistence in smoking cessation, dietary change, or exercise was a problem of many Polish MI survivors. The CCMI model thus included counseling and education as key elements in the framework and thus the patient was not just the passive recipient of medical care but rather he/she actively participated in their recovery. This multidimensional emphasis was to rectify the system failure in that the high end hospital care was being compromised by the low end self-management failure.

Naturally, there were some hurdles in the inception of the programme. Some providers were opposed to it and believed that it would cause administrative overloads, reimbursement models, and the necessity to fulfill rigid organizational demands. Besides, inequities in the original rollout were caused by disparities in resources between regions. Nevertheless, these difficulties emphasized the need of a reorganization of the system. Lacking national action, local-level strategies would have been inadequate to move results at the population scale.

Overall, the experience of the Comprehensive Care after Myocardial Infarction programme shows how clinical evidence, policy advocacy, and socio-economic need converged. It was conceived with the acknowledgment that salvaging lives in the acute stage of myocardial infarction was just the initial part; salvaging lives with quality and avoiding the relapse was an even bigger challenge. Planting ESC recommendations into national practice, engaging multidisciplinary teams, and re-conceptualising cardiac care as a long-term investment, Poland made an audacious move towards lowering the mortality and burden of cardiovascular disease. The origin of CCMI, then, is the genesis of a programme but also the genesis of a cultural and systemic change in the understanding and management of chronic cardiac conditions.

3.Criteria for Qualification

The Comprehensive Care after Myocardial Infarction (CCMI) programme needed to be designed with clear and standardised and just qualification criteria. Absent clear instructions on who had access to the model of care, implementation was likely to be varied, underutilized, and fail to be equally applied to different regions. Introduction of qualification standards thus became one of the cornerstones of developing the programme. Such criteria did not only determine who was eligible but also highlighted the overall vision of the programme inclusiveness, continuity and quality in the post-MI management.

1. Diagnostic-code-based Medical Eligibility.

Fundamentally, the CCMI programme was made to establish eligibility as per the International Classification of Diseases, 10 th Revision (ICD-10).

The programme anchored eligibility on universally recognized diagnostic categories meaning it was objective and conformed to the international cardiology practice. Notably, this method minimized the level of ambiguity among physicians and administrators as it is easy to determine which patients would be enrolled once they have been admitted to the hospital.

2. Inclusion of All Post-MI Patients, Regardless of Severity

Among the peculiarities of CCMI, it was not limited to eligibility by clinical severity or demographic portrait. A patient had the right to a full course of care whether he had an initial infarction, recurrent episode, or had complex co-morbidities. This move was vital since recurrent infarctions are usually an indicator of the highest demand of

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structured assistance. Moreover, the younger patients who were in the workforce and the older patients who were frail were also accommodated, which further enhanced the philosophy of universality of the programme.

It was indeed a huge step forward compared to the fragmented practices of the past, in which access to rehabilitation or specialist follow-up was inconsistent and usually only available to patients considered as being at low risk or residing near a major cardiology centre.

3. Equity and Accessibility Considerations

Although the diagnostic codes offered a medical filter, the creators of CCMI were also interested in preventing socio-economic barriers to care(6). The National Health Fund (NHF) covered all eligible services so that patients do not pay any out of pocket costs to participate in them. The scheme of financing placed CCMI in a crucial position as a medical programme and a social equalizer, making healthcare inequalities less within the same context of providing standardized care to patients regardless of their income, geographical locations, and medical facilities.

Moreover, the eligibility was not determined by the kind of hospital the MI was managed in. Hospitals in the counties, university clinics, and cardiology centers were equally empowered to enroll the patients as long as they met the organizational standards. This expanded the geographical coverage of the programme and made sure that the access was not clustered in metropolitan centres.

4. Timing of Enrolment

There was also the eligibility tied to the time of enrolment. The patients were supposed to join the programme right after their stabilization and discharge of the hospital. Early inclusion was underscored so as to maintain continuity of care, avoid delays of rehabilitation and support compliance with pharmacotherapy. The rationale was straightforward: the sooner the patient undergoes full-scale follow-up, the more chances of survival and decreased recurrence during the first year after MI which is the key one.

5. Multidisciplinary Assessment as Part of Qualification

Although the initial eligibility was done by using ICD-10 diagnosis, multidisciplinary teams were essential in addressing individual needs. A baseline evaluation of patients on admission in CCMI consisted of:

- Cardiological examination and treatment planning
- Lab and imaging diagnostics (ECG, biomarkers, echocardiography)
- Possible risk factors (hypertension, dyslipidemia, diabetes, smoking, obesity) are profiled.
- Psychosocial assessment (mental health, work ability, family support)

Such an overview allowed this to be a holistic assessment of the qualification process and not a one-size-fits-all approach to treatment. In such a way, patients with low ejection fraction may be referred to implantable cardioverter-defibrillators (ICDs) or cardiac resynchronization therapy (CRT-D), whereas those with psychosocial stress may be given priority to psychological counselling.

6. Challenges and Limitations of Qualification

Although it is comprehensive, early practice showed that various difficulties exist in the use of qualification criteria. Other facilities did not have experience in providing uniform ICD coding, and they underreported or misclassified. The rest had an administrative challenge in admitting patients within strict time frames. Moreover, there were disparities in rehabilitation centres in the region, which implied that even though a patient might be technically qualified, they were sometimes not able to receive services.

The second shortcoming was that of patient withdrawal. Although all of the post-MI patients might be initially eligible, some of them did not pass modules because of their personal preference, logistical issues, and comorbidity. This brought up the question of the trade-off between the qualification requirements and practicalism of long-term attendance(7).

7. Ethical and Policy Implications

The wide qualifying structures represent more serious ethical undertakings in healthcare. CCMI contributed further to the principle of justice in health policy, that the most vulnerable to premature death should not be locked out by bureaucratic or economic means, by including all post-MI patients, without regard to their social or clinical profile. Besides, the financing model emphasized unity in the Polish health care industry, redistributing funds to provide universal secondary prevention among all the qualified citizens.

Besides this, strict eligibility using ICD-10 resulted in an open accountability system. The policymakers would be able to keep track of the ratio of the number of eligible patients to the number of patients who signed up and thus

see any lapse in coverage and make reforms accordingly. This evidence-based strategy turned not only the eligibility criteria into a medical tool, but also into a policy instrument to be assessed and enhanced.

8. Broader Lessons from Qualification Design

The development of qualification criteria within CCMI offers lessons beyond Poland. To begin with, the universal inclusion according to medical diagnosis makes the equity stronger and enhances the impact at the population level. Second, multidisciplinary assessment is the sole means of seeing to it that the eligibility results in individualized intervention, but not care of the one-size-fits-all treatment. Third, financing mechanisms play a central role in ensuring that eligibility has meaning- because without financial coverage formal inclusion does not always translate into access in practice. Lastly, the Polish experience demonstrates that the qualification criteria must be revised over the time, with the feedback provided by the providers and patients in order to avoid leaving behind all the eligible people.

4.Discussion

1. Clinical Outcomes and Survival Benefits

One of the most eye-opening results of initial analyses of CCMI is, perhaps, the decrease in mortality. The patients who were on the programme showed a 29 percent reduction in the risk of death within the first year of the post MI period as compared to the non participants. These survival advantages were universal in the different timeline, 30 days, 180 days, and 365 days post-discharge. This kind of evidence proves that the continuity of care, including rehabilitation and frequent cardiology visits, is a determining factor in survival enhancement.

It is also important that rehospitalizations and recurrent adverse cardiac events are reduced. Professionally administered timely follow-up and systematically conducted secondary prevention helps to minimize the risk of recidivism, exacerbations of heart failure, and unexpected hospitalizations (CCMI). Such results are in line with international results, especially in Western Europe, where integrated cardiac rehabilitation programs have been linked with less recurrence, and better long-term outcomes.

2. Patient-Centered Benefits Beyond Survival

In addition to survival rates, CCMI adds significant value to the quality of life in the patients. Organized rehabilitation enhances the functional capacity, replenishes physical fitness and minimizes the symptoms like dyspnea and fatigue. The incorporated psychological support in the programme is aimed at depression/anxiety, which is extremely high among the survivors of MI but tends to be ignored. Dietetic counseling and lifestyle counseling also enable patients to make healthier choices, which support the management of disease on a long-term basis.

A particularly significant effect is that it has reinstated patients into the workforce. It has been reported that about 10 per cent of the CCMI participants could go back to work after four months, that is one way of showing that the programme not only restored the health of the stand but also the social and economic contribution. This larger view highlights the importance of the fact that holistic cardiac care cannot be evaluated only in the terms of survival but also in the terms of recovery of life functions and reintegration into the community.

3. Health System Efficiency and Economic Implications

The presentation of CCMI is impossible without the financial aspect of it. Although the programme may at first need increased investment especially in the establishment of multidisciplinary teams and the creation of additional rehabilitation services, there is a possibility of cost saving in the long run. Less rehospitalization, lower disability pension, and better productivity provide economic returns which justify expenditure in the short term. In this regard, CCMI transforms the concept of cardiac care based on investment and not on expenditure in line with the international healthcare policy of value-based healthcare.

In addition, the programme is effective in long-standing inefficiencies that have been a part of fragmented service delivery by tying reimbursement to quality and continuity. Financial structures are aligned with patient outcomes by motivating hospitals and clinics to deliver coordinated treatment instead of independent actions. This is a major change in culture in healthcare financing and as such, it can be used as a template in other chronic disease management programmes in Poland and other countries(8).

4. Implementation Challenges and Barriers

Although successful, CCMI has gone through its difficulties that should not be ignored. The programme was not taken up evenly early, with few hospitals and patients participating. Factors that contributed to the situation were the administrative burden, lack of incentive on the providers and unawareness of patients. Proficiency in the

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coordination of multiple services (diagnosis, rehabilitation, electrotherapy, outpatient care) was a logistical challenge, especially in the facilities with insufficient infrastructure or in shortage of personnel.

There is also the problem of geographical disparities. Whereas large urban centres usually possessed properly equipped cardiology units that were able to provide full-scale services, smaller and rural hospitals failed to address the demands of the programme. This caused inequality in access and questioned equality. To fill these gaps, there is need to have intentional policy interventions, such as specific funds, capacity building, and redistribution of resources.

5. Comparative Insights from International Models

CCMI is rather coherent with the best practices suggested by European Society of Cardiology in comparison with international models. The importance of structured rehabilitation and long-term follow-up as critical elements of secondary prevention is long established in programmes in countries, including Germany, the Netherlands, and Sweden. Poland is however innovative in that these practices have been implemented in a national based, centrally coordinated system financed by the government. Whereas Western Europe tends to use regional variations and insurance-based models, CCMIs ensures that everyone has access by using the National Health Fund, which is more just in principle(9).

However, this should be evaluated further to compare the performance of Poland with the international standards on functional recovery, patient satisfaction, and cost-effectiveness. These comparisons might direct refinements and may be used to obtain political and financial backing to continue and grow the programme.

6. Ethical and Social Dimensions

Ethical implication is also present in the CCMI programme. It supports the concept of equity and justice in healthcare since every post-MI patient, irrespective of age, socio-economic background, and clinical severity, can be ensured access. It acknowledges the fact that the most vulnerable individuals to repeated events should not be left out of the full support. The incorporation of psychological and lifestyle factors will show that the patients are not just treated as cardiac conditions but as complete individuals.

The programme also plays a social role in the alleviation of stigma and isolation that have been closely linked with chronic illness. It helps to build resilience, confidence, and social reintegration because it allows patients to resume an active life. Although they cannot be quantified as easily as survival statistics, these benefits are necessary in the quantification of the actual worth of healthcare interventions.

5.Conclusion

The literature received so far attests to the fact that CCMI has provided significant gains in patient outcomes. The greatest accomplishment was the decrease in mortality, as enrolled patients were found to face almost 29% less likelihood of death in a year than non-programme patients. This number alone confirms the central tenet that CCMI was constructed on: that a holistic, sustained and integrated post-MI care saves lives.

The programme has shown other clinical and social advantages on top of survival. Rehospitalization rates have decreased, there is increased access to organized rehabilitation and more patients are undergoing tests towards sophisticated interventions like implantable cardioverter-defibrillators (ICDs) and cardiac resynchronization therapy (CRT-D). There has also been an increase in the functional capacity and quality of life of the patients with a quantifiable percentage of patients capable of getting back to work within months of discharge. Collectively, these results show that CCMI succeeds in delivering not only in medical stabilization but also in health, independence, and productivity restoration.

Implications for Public Health Policy

The programme has a wider implication than personal patient outcome. CCMI eases the financial strain on health care by decreasing readmissions and morbidities. Although these cost savings are not central to patient health, they play a vital role in today's healthcare era of increased demands and limited resources. In that regard, CCMI shows that properly planned public health programmes are able to be more effective and efficient at the same time, which is quite unusual the health policy intersection of interests.

Furthermore, CCMI portrays the strength of the connection between clinical care and the financing on the system level. Bundled services and quality-related reimbursement models are used to make sure that providers are motivated to provide integrated, holistic care. This is a move closer to value-based healthcare systems, as opposed to the disjointed models of procedure-based healthcare, which focus on volume instead of outcomes. Based on

that, CCMI is capable of being used as a model of other chronic disease pathways in Poland, such as diabetes management, chronic heart failure, post-stroke care.

Unresolved Problems and deficiencies.

Irrespective of these successes, there are still problems that need to be overcome in order to actualize the potential of the programme.

Inequal access: Geographic inequalities still restrict access to patients especially in rural regions where the cardiology facilities and rehabilitation facilities are not well developed.

Participation by providers: There has been slow uptake of CCMI with the administration of hospitals reluctant to join because of administrative burden and uncertainty over reimbursement. Whereas the participation has been enhanced, more incentives and backing are needed to ensure that the entire country is covered.

Patient compliance: Not all patients follow rehabilitation or even follow-up visits even in the context of CCMI. There are social, psychological and logistical barriers including distance to clinics, absence of family support and more which increase dropout rates.

Administrative complexity: Monitoring indicators and reporting requirement, though contingent on accountability, may create a tremendous workload on providers and may de-motivate participation.

These obstacles emphasize the fact that system governance, patient engagement, and resource allocation are part of the comprehensive care implementation issues, and not just clinical design.

Stronger CCMI Recommendations.

In order to consolidate and broaden the success of CCMI, it is possible to recommend the following recommendations:

Increase Geographical Access: The current disparities can be linked by investing in rural rehabilitation centers, mobile health services, and telemedicine platforms. Tele-rehabilitation as a hybrid model would make CCMI reach a broader population that would otherwise be underserved.

Make it Easier to be an Administration: The administrative load of reporting and the ability to monitor digitally might ease the administrative load on the providers and lead to greater participation.

Create Awareness and Education: Patients should be made aware of the significance of rehabilitation and long-term care through the development of awareness campaigns in the general population. At the same time, compliance with CCMI protocols can be enhanced via training programmes of healthcare workers.

Build Patient Support Systems: Family counseling, community-based support network, incorporation of psychological services can be used to make sure that patients are engaged and adhere.

Maintain and Adjust Financing Mechanisms: It is necessary to continue political and financial investment. Reimbursement model adjustments such as enhanced understanding of the cost of rehabilitation and outpatient follow-up will help maintain provider motivation.

Combine with Primary Prevention: Although CCMI focuses on secondary prevention, its connection with more comprehensive national attempts to focus on primary prevention (e.g., POLKARD and KORDIAN) could establish a cardiovascular care continuum, i.e., prevention of risk, prevention of cardiovascular acute care, and prevention of cardiovascular chronic care.

Broader Lessons for Europe and Beyond

The experience of the CCMI can provide other nations struggling with the problem of cardiovascular disease with some useful lessons. Numerous countries have designs on secondary prevention, yet few have a country-coordinated, publicly-funded model with bundle services and accountability measures. The case of Poland shows that these models can be implemented in even resource limited environments as long as there is a political desire and well-organized funding.

CCMI outshines the principle of treating the patient comprehensively as not a luxury but requires restoring the patients to productive lives by saving deaths, preventing rehospitalization, and reintegrating them back to productive living. It is focused on integration, equity, and evidence-based policy which could be an example of how any system of health can be improved to fit the needs of different health systems across the globe.

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Conflicts of interest

The authors have no conflicts of interest to declare

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References

1. Ibanez B, James S, Agewall S. 2017 ESC Guidelines for the management of acute myocardial infarction in patients presenting with ST-segment elevation. European Heart Journal. 2018;39(2):119–177.
2. Jankowski P, Niewada M, Bochenek A. Optimal post-myocardial infarction care: Challenges in Poland. Cardiology Journal. 2020;27(5):497–506.
3. Timmis A, Townsend N, Gale C. European Society of Cardiology: Cardiovascular disease statistics 2019. European Heart Journal. 2020;41(1):12–85.
4. Pająk A, Kozela M, Zdrojewski T. Cardiovascular disease in Poland: Trends, risk factors, and prevention. Kardiologia Polska. 2016;74(2):179–187.
5. Nichols M, Townsend N, Scarborough P. Cardiovascular disease in Europe: Epidemiological update. European Heart Journal. 2013;34(39):3028–3034.
6. Knuuti J, Wijns W, Saraste A. 2019 ESC Guidelines for the diagnosis and management of chronic coronary syndromes. European Heart Journal. 2020;41(3):407–477.
7. Mendis S, Puska P, Norrving B. Global atlas on cardiovascular disease prevention and control. World Health Organization. 2011;1(1):1–155.