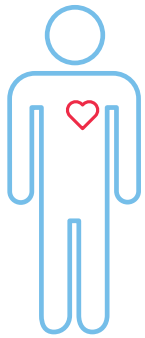


Secondary prevention of
**HEART ATTACK
AND STROKE**
in
Italy

MORE THAN



2.7 million

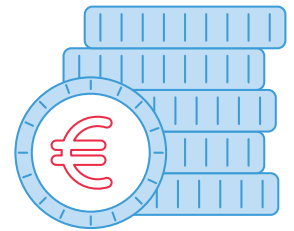
people are living with
coronary heart disease¹

772,000

people have survived
a stroke¹

THE DIRECT COST

of coronary heart disease
and cerebrovascular
disease to the
healthcare system is

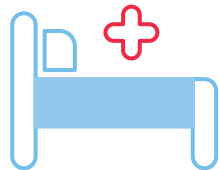


€5.92 bn per year²

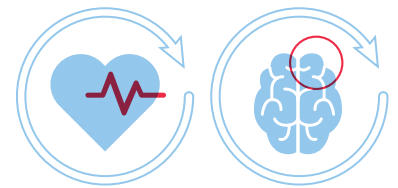
In 2016, inpatient care for cardiac and
cerebrovascular disease generated more than

7.7 million

days of hospital stay³



People who
experience heart
attack or stroke
often face an
unnecessarily



HIGH RISK OF REPEAT EVENTS

MANY REPEAT HEART ATTACKS AND STROKES COULD BE AVOIDED.

Secondary prevention can mitigate the risk of a subsequent heart attack or stroke through comprehensive risk factor management, combining rehabilitation, preventive medication and lifestyle change.^{4,5} Long-term maintenance of risk factor control is key to achieving successful secondary prevention.

Note: Coronary heart disease is characterised by a build-up of plaque in the arteries that serve the heart. The most dangerous consequence of coronary heart disease is heart attack. Cerebrovascular disease is a collection of conditions which affect the blood vessels of the brain. The most common cerebrovascular disease is stroke, which is classified as a neurological disease. In this summary, we have used data specific to heart attack and stroke, where available.

WHAT IS THE CURRENT SITUATION?

Secondary prevention for heart attack and stroke involves specialist acute care, structured rehabilitation and long-term management in primary care. Systemic gaps and inequalities in the availability of such care are putting people at an increased risk of repeat events.



Interventions at the acute stage are frequently used in heart attack patients, but many stroke patients lack access to **specialist acute care**

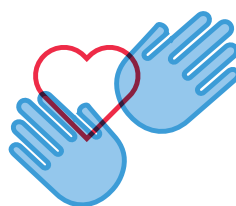
Heart attack and stroke patients should be treated in a specialist acute care setting. This helps ensure that secondary prevention is initiated while the person is still in hospital.



There appear to be high levels of prescription rates for some of the key risk-reducing medications, with 92% of heart attack patients being prescribed statins, 89% beta blockers and 85% dual antiplatelet therapy.⁶



Fewer than one third of stroke patients are admitted to stroke units⁷ and at least a third of hospital patients do not receive risk-reducing medication following a stroke.⁸



Access to structured rehabilitation is inconsistent

Secondary prevention should continue seamlessly following discharge from hospital. This is best achieved through a structured rehabilitation programme, such as cardiac rehabilitation.



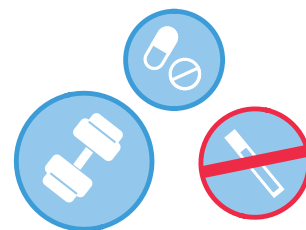
More than 280,000 patients who need cardiac rehabilitation are estimated to miss out each year due to a lack of facilities.⁹



31% of stroke patients prescribed outpatient rehabilitation were unable to take advantage of these services, often for logistical reasons such as transportation issues.¹⁰

GOOD PRACTICE:

The region of Friuli-Venezia Giulia has established an integrated health and social care heart attack pathway covering post-discharge care for secondary prevention. Referral to cardiac rehabilitation is recommended for high-risk groups within 15–20 days of discharge. Additionally, follow-up checks are recommended at 6 and 12 months after the heart attack.¹¹



Risk-factor control during long-term management does not meet guideline recommendations

After a heart attack or stroke, people require lifelong medication and lifestyle changes to lower their risk factors, such as high cholesterol and smoking.



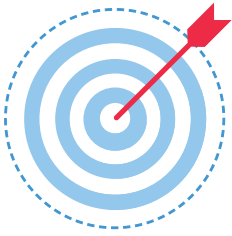
Six months after a heart attack, blood pressure and cholesterol are poorly controlled in 26% and 24% of patients, respectively, despite the use of risk-reducing medication, while 59% of patients continue to undertake insufficient exercise.⁶



46% of younger stroke patients (aged 18–45) who had another stroke were current smokers.¹²

GOOD PRACTICE:

The ALLEPRE⁵ trial is a secondary prevention programme aimed at improving long-term outcomes for people with acute coronary syndrome, including heart attack. Participants receive nine nurse-led sessions over four years. The sessions aim to facilitate and monitor healthy lifestyle changes, reduce risk factors and increase adherence to prescribed medications.



There is no **dedicated policy** addressing secondary prevention in heart attack and stroke

Goal-oriented policies and strategies are vital to set clear targets and boost investment in best-practice secondary prevention.



A National Plan for Prevention exists, but its most recent version does not address secondary prevention in cardiovascular disease.¹³⁻¹⁴ Most regional plans also fail to recognise secondary prevention as a specific priority.¹⁵⁻¹⁷



Advocacy for secondary prevention of heart attack and stroke is falling short on increasing national awareness

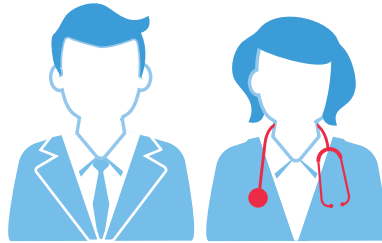
Advocacy efforts, such as targeted campaigns, help increase public and political awareness. They may stimulate action at the service delivery and policy levels.



There does not appear to be any public scrutiny or advocacy for the secondary prevention of heart attack.



Advocacy efforts in stroke are primarily focused on progressing the regional implementation of post-acute stroke care pathways.¹⁸⁻²⁰



Clinical leadership is striving to improve clinical practice for secondary prevention

Clear, practice-oriented guidelines foster knowledge among healthcare professionals and implementation of best-practice care.



The Italian clinical community has made considerable efforts to align national guidelines covering secondary prevention in heart attack with internationally validated evidence. Guidelines from the European Society of Cardiology have been translated into Italian and disseminated across the country.²¹



The Italian stroke community has come together to progress best-practice secondary prevention in stroke. National stroke guidelines which cover secondary prevention have been co-created by 46 scientific bodies and four patient associations.²²

GOOD PRACTICE:

Nine scientific societies and the National Research Council developed a Joint Consensus Document on Cardiovascular Disease Prevention in Italy. This presents a modern, integrated approach to prevention based on the multidisciplinary management of total cardiovascular disease risk. Primary and secondary prevention are viewed as equally important parts.²³⁻²⁴

In 2012, the Italian Ministry of Health published a consensus document defining the appropriate approach to post-acute management. This paved the way for stroke care pathways that were launched and implemented in subsequent years.¹⁸⁻²⁵



There is a lack of **national registries** to collect comprehensive data on heart attack and stroke

Data on treatment, outcomes and quality of care after the acute phase are needed to monitor, plan and assess care services for secondary prevention.



Very few national or regional data related to secondary prevention are consistently collected. There is no national heart attack registry, with the available data coming from fixed-term local registries and studies.⁶⁻²⁶



There is currently no national stroke registry, and there is a lack of regional stroke patient registries to capture data on care delivery and patient outcomes.²⁷⁻²⁸

WHAT ARE THE OPPORTUNITIES FOR IMPROVEMENT?

Effective secondary prevention in heart attack and stroke requires a comprehensive package of interventions coordinated by a multidisciplinary team across all care settings.

Currently, patients in Italy face systemic barriers and inequalities in accessing secondary prevention at all stages of care, from acute care to long-term management.

Addressing these gaps represents a major opportunity to improve outcomes and potentially reduce national healthcare spending associated with repeat events.

Improving the availability of stroke units, for example, could increase the number of patients accessing secondary prevention during the acute phase of care.

Bringing medication use for risk factor control in line with guidelines also offers a significant

opportunity to improve patient outcomes. To take advantage of these opportunities, both national and regional leadership will likely be needed, with the National Plan for Prevention potentially updated to cover secondary prevention. Greater national direction may also help to encourage the development of regional policy and, in turn, address the significant differences in care standards across Italy. Encouragingly, **best-practice models have been established** for discharge, transition and ongoing prevention, and could serve as blueprints for improvement efforts.

To find out more about this project and read the full country profile on Italy, please see

<https://hpolicy.co/secondaryprevention>

REFERENCES

1. Global Burden of Disease Collaborative Network. 2019. Global Burden of Disease Results Tool. Available from: <http://ghdx.healthdata.org/gbd-results-tool> [Accessed 09/11/20]
2. Wilkins E, Wilson L, Wickramasinghe K, et al. 2017. European Cardiovascular Disease Statistics 2017. Brussels: European Heart Network
3. Ministero della Salute. 2017. *Rapporto annuale sull'attività di ricovero ospedaliero - Dati SDO 2016*. Rome: Ministero della Salute
4. Piepoli MF, Hoes AW, Agewall S, et al. 2016. 2016 European Guidelines on cardiovascular disease prevention in clinical practice: The Sixth Joint Task Force of the European Society of Cardiology and Other Societies on Cardiovascular Disease Prevention in Clinical Practice (constituted by representatives of 10 societies and by invited experts) Developed with the special contribution of the European Association for Cardiovascular Prevention & Rehabilitation (EACPR). *Eur Heart J* 37(29): 2315-81
5. Paoli G, Notarangelo MF, Mattioli M, et al. 2018. ALLiance for sEcondary PREvention after an acute coronary syndrome. The ALLEPRE trial: A multicenter fully nurse-coordinated intensive intervention program. *Am Heart J* 203: 12-16
6. Urbinati S, Olivari Z, Gonzini L, et al. 2015. Secondary prevention after acute myocardial infarction: drug adherence, treatment goals, and predictors of health lifestyle habits. The BLITZ-4 Registry. *Eur J Prev Cardiol* 22(12): 1548-56
7. Stevens E, Emmett E, Wang Y, et al. 2017. *The Burden of Stroke in Europe Report: Appendix*. London: King's College London for the Stroke Alliance for Europe
8. Di Carlo A, Lamassa M, Franceschini M, et al. 2018. Impact of acute-phase complications and interventions on 6-month survival after stroke. A prospective observational study. *PLoS One* 13(3): e0194786
9. Abreu A, Pesah E, Supervia M, et al. 2019. Cardiac rehabilitation availability and delivery in Europe: How does it differ by region and compare with other high-income countries?: Endorsed by the European Association of Preventive Cardiology. *Eur J Prev Cardiol* 26(11): 1131-46
10. Baldereschi M, Carlo A. 2019. Access to rehabilitation for patients with stroke in Florence, Italy. Available from: <https://www.morressier.com/article/access-rehabilitation-patients-stroke-florence-italy/5cb58cfdc668520010b56daa> [Accessed 02/11/20]
11. Regione Friuli-Venezia Giulia. 2019. *Percorso Diagnostico Terapeutico Assistenziale - Percorso assistenziale del paziente con infarto miocardico con soprasslivellamento tratto st (stemi)*. Trieste: Regione Friuli-Venezia Giulia
12. Pezzini A, Grassi M, Lodigiani C, et al. 2014. Predictors of Long-Term Recurrent Vascular Events After Ischemic Stroke at Young Age. *Circulation* 129(16): 1668-76
13. Alleanza Italiana per le malattie cardio-cerebrovascolari. 2017. *Documento di Strategia*. Rome: Ministero della Salute
14. Ministero della Salute. 2014. *Piano Nazionale della Prevenzione 2014-2018*. Rome: Ministero della Salute
15. Dipartimento per la Salute e il Welfare Regione Abruzzo. 2015. *Piano Regionale di Prevenzione 2014-2018*. Pescara: Dipartimento per la Salute e il Welfare Regione Abruzzo
16. Regione Autonoma della Sardegna. 2015. *Piano Regionale di Prevenzione 2014-2018*. Cagliari: Regione Autonoma della Sardegna
17. Regione Lazio. 2018. *Piano Regionale della Prevenzione (PRP) 2014-2019*. Rome: Regione Lazio
18. Osservatorio Ictus Italia. 2018. *Rapporto 2018 sull'Ictus in Italia: Una fotografia su prevenzione, percorsi di cura e prospettive*. Rome: Osservatorio Ictus Italia
19. Cittadinanzattiva. 2018. Chi siamo - 40 anni di Cittadinanzattiva. Available from: <https://www.cittadinanzattiva.it/chi-siamo.html> [Accessed 02/11/20]
20. Cittadinanzattiva. 2017. Ictus: le cure in Italia. Analisi civica dei Percorsi diagnostici, terapeutici e assistenziali. Available from: <https://www.cittadinanzattiva.it/progetti-e-campagne/salute/10276-ictus-le-cure-in-italia-analisi-civica-dei-percorsi-diagnostici-terapeutici-assistenziali.html> [Accessed 02/11/20]
21. Novo S. 2015. *Country report Italy – August 2015: EACPR “Country of the Month” initiative*. Biot: European Society of Cardiology
22. Italian Stroke Organisation, Stroke Prevention and Educational Awareness Diffusion. 2016. *Ictus cerebrale: linee guida italiane di prevenzione e trattamento*. Rome: ISO
23. Volpe M, Battistoni A, Gallo G, et al. 2018. Executive Summary of the 2018 Joint Consensus Document on Cardiovascular Disease Prevention in Italy. *High Blood Press Cardiovasc Prev* 25(3): 327-41
24. Volpe M, Tocci G, Accettura D, et al. 2018. Documento di consenso e raccomandazioni per la prevenzione cardiovascolare in Italia 2018. *G Ital Cardiol (Rome)* 19(2 Suppl 1): 1S-95S
25. Casazza S, Consoli D, De Falco FA, et al. 2012. *Criteri di appropriatezza strutturale, tecnologica e clinica nella prevenzione, diagnosi e cura della patologia cerebrovascolare*. Rome: Ministero della Salute
26. De Luca L, Piscione F, Colivicchi F, et al. 2018. Contemporary management of patients referring to cardiologists one to three years from a myocardial infarction: The EYESHOT Post-MI study. *Int J Cardiol* 273: 8-14
27. Karnad A, Pannelay A, Boshnakova A, et al. 2018. Stroke prevention in Europe: how are 11 European countries progressing toward the European Society of Cardiology (ESC) recommendations? *Risk Manag Healthc Policy* 11: 117-25
28. Guidetti D, Spallazzi M, Baldereschi M, et al. 2014. Post-stroke rehabilitation in Italy: Inconsistencies across regional strategies. *Eur J Phys Rehabil Med* 50: 335-41

This summary is part of a larger project exploring secondary prevention of heart attack and stroke across Europe. The project was developed by The Health Policy Partnership and initiated and funded by Amgen (Europe) GmbH.