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FEMS Position Paper on Arduous Medical Work: Health Impact, Policy Needs and Proposals

INTRODUCTION

The medical profession, a fundamental pillar of European healthcare systems, demands constant physical and mental effort that far exceeds contractual working hours. Doctors are required to face high emotional pressure on a daily basis, long shifts, sleepless nights, continuous exposure to stress factors related both to clinical complexity and organizational challenges, and heavy and unique responsibilities. In addition, they must deal with an increasing administrative burden, chronic understaffing, aggressive work environments, and the inevitable confrontation with suffering and death.

Taken together, these elements clearly define a professional condition marked by exhaustion and strenuousness. Nevertheless, in the majority of European countries, the formal recognition of medicine as an arduous or hazardous profession is still absent or insufficient.

This paper aims to thoroughly examine the reasons why the medical profession should be fully recognized as an arduous and wearing occupation, based on scientific data, epidemiological evidence, and testimonies from the field. The goal is to provide FEMS and the relevant institutions with the necessary tools to advocate for this recognition and to initiate concrete actions to protect and promote the physical and mental well-being of salaried doctors across Europe

DEFINITION AND REGULATION OF ARDUOUS AND HAZARDOUS WORK IN EUROPE

There is no consensus across OECD countries on how to define hazardous or arduous jobs, without any clear- cut definition.

Defining what qualifies as hazardous or arduous work is an especially sensitive issue due to its implications from an economic and organizational perspective. Based on examples from different countries, the lists of professions vary widely but the medical profession is never mentioned. However, a common feature is that these jobs typically involve organizational factors (long hours, night shifts), physical factors (noisy environments), biological or chemical elements that cause physical and/or mental hardships, leading to one or more consequences: health problems, difficulties in continuing the same job or remaining in the same occupation, loss of productivity, or premature death.

In the Final Report,"*Better Understanding of 'Arduous Occupations' within the European Pension Debate"* -2014 ETUC et al. adopted a definition for arduous and hazardouos jobs that was also reiterated in the document *" Retirement regimes for workers in arduous or hazardous jobs in Europe-*

A study of national policies " published by the European Commission in 2016:
Arduous and hazardous jobs can be defined as: "Occupations involving the exposure of the worker over a period of time to one or several factors leading to professional situations susceptible to leave long-lasting and irreversible effects on his/her health; these factors are related to physical constraints, psychosocial risks, an aggressive physical environment, working organisation and working rhythms, including shift work".
These conditions can result in:

- ✓ a deterioration of health of workers in question, which may not become apparent at the time of exposure, leading to physical impairment, mental impairment and chronic diseases,
- ✓ A difficulty for workers to continue to carry out the same job, the same workload and/or working schedule or remain in the same occupation,
- ✓ A work-related disability,
- ✓ A diminished life expectancy,
- ✓ A diminished healthy life expectancy,
- ✓ A premature mortality.

The medical profession – especially in its most demanding specialties – perfectly meets the requirements outlined above, and in this line of work can identify elements of both arduousness and hazardousness.
The scientific literature presented in the following paragraph provides evidence in support of the statements made.

HOSPITAL WORK AND HEALTH IMPACTS ON MEDICAL STAFF: AN OVERVIEW
While the medical profession plays a crucial role in safeguarding public health, those who practice it are exposed to a wide range of risks to their physical well-being. Shift work, extended or irregular hours, and exposure to environmental and occupational hazards are all critical factors that negatively affect physicians' physical health, mental health and life expectancy

1. ***Impact on Physicians' Life Expectancy***

The 2021 study Medical Specialties and Life Expectancy: An Analysis of Doctors' Obituaries 1997–2019 by Adam B. Brayne, published in Lifestyle Medicine, analyzed 8,156 obituaries of UK physicians from the British Medical Journal using web scraping and natural language processing to extract data on age, specialty, and cause of death. Applying relative survival analysis, the researchers assessed whether being a doctor influences life expectancy compared to the general population, using the date of medical qualification as the starting point of exposure. The study revealed significant differences among specialties: emergency physicians had the lowest average age at death (58.7 years), with a higher proportion of accidental deaths, while specialties like anesthesiology, pediatrics, psychiatry, and radiology were also associated with shorter lifespans. In contrast, surgeons and general practitioners tended to live longer. Despite these variations, doctors overall had better survival than the general population, with the survival advantage becoming evident four years after qualification and increasing over time. However, emergency medicine was the only specialty where survival fell below population norms. Cancer was the leading cause of death (39.1%), while cardiovascular disease ranked second, except among emergency physicians, where non-transport-related accidents were most common. Retirement patterns also varied: general practitioners tended to retire earlier and were less likely to return to work part-time, a factor possibly contributing to their longer life expectancy by reducing stress and cardiovascular risk. The findings suggest that while doctors generally live longer than average, certain high-stress specialties may carry specific health risks.
A 2016 study by the Italian Order of Actuaries, covering 1980–2011, found that high-income

professions like medicine were linked to longer life expectancy than the general population. More recent ENPAM data (2020–2022) confirmed that both male and female doctors in Italy continue to outlive their non-medical peers. However, the longevity gap is shrinking—particularly among women. In 2005, female physicians lived four years longer than the general female population; by 2022, this difference had narrowed to 1.77 years. Among men, the gap decreased from 2.13 to 1.92 years over the same period. A notable decline in life expectancy at age 68 was also observed among doctors during 2006–2009 and again in 2020–2021, unlike in the general population. While the latter dip is attributed to COVID-19, the earlier decline likely stems from the 2008 financial crisis and subsequent austerity measures, including hiring freezes and failure to implement EU regulations on working hours and rest periods. These structural issues, worsened by the pandemic, have had lasting negative effects on working conditions in hospitals. The growing presence of women in medicine adds a further layer of concern, as studies have shown that female doctors face higher psychological risks from work-related stress and burnout. A 2022 article in the Journal of Gender Specific Medicine highlighted these risks, while research published in Current Biology suggested that the intense cognitive demands of medical work may cause neurotoxic effects through glutamate accumulation in the brain.

2. ***Impact on Physicians' physical health***

Shift Work and Its Physiological Effects

Numerous studies have shown that shift work—particularly night shifts—is linked to significant health risks. Working at night disrupts normal sleep patterns, leads to shorter and poorer-quality rest during the day, causes sleep deprivation, alters eating schedules, and increases exposure to artificial light. Over time, these factors deeply affect human physiology and may even contribute to cancer development. The primary biological mechanism involves disruption of the body's circadian rhythms, governed by the suprachiasmatic nuclei (SCN) in the hypothalamus. These rhythms regulate key functions such as melatonin production and are synchronized with the natural light-dark cycle. Artificial light at night can disturb these processes at both cellular and behavioral levels

- Short-Term Effects of Shift Work

Immediate consequences of shift work include sleep disturbances—such as reduced REM sleep and hormonal imbalances involving melatonin, cortisol, insulin, and prolactin—as well as weakened immune function. Fatigue and reduced performance, especially after night shifts, are common, although some cognitive tasks may be less affected. Social life also suffers, as shift work conflicts with conventional schedules, leading to isolation, frustration, and mood disturbances. Tolerance to shift work varies depending on age, personality, and how shifts are structured. Faster and clockwise rotations (morning, afternoon, night) are generally better tolerated than slow or counterclockwise rotations.

- Long-Term Effects

Medical shift work is associated with a wide range of chronic health issues:
Chronic exposure to shift work is associated with a range of serious health conditions. Gastrointestinal symptoms like heartburn and bloating are frequent. There's also a higher risk of metabolic syndrome—especially in women—and of "normal-weight obesity," where excess fat is present despite a normal BMI. These increase the likelihood of diabetes, stroke, cardiovascular disease, and cancer. Cardiovascular risks are especially pronounced, with shift workers facing up to a 40% greater risk of events like hypertension and heart attacks. Neuropsychiatric disorders, though harder to quantify, are also a concern, as is reproductive health: night shifts have been linked to miscarriage, low birth weight, and preterm births, likely due to hormonal disruption and stress. Circadian disruption also affects drug metabolism and toxic exposure, making current safety

standards—which are often based on standard 8-hour shifts—potentially inadequate for irregular or extended work hours.

- Occupational Hazards Specific to the Medical Profession

Beyond the effects of scheduling, physicians are also exposed to various workplace hazards, including:
In addition to risks from shift patterns, healthcare workers face a variety of job-specific hazards. Musculoskeletal disorders are widespread, particularly due to handling heavy patients. Sharp injuries from needles or scalpels pose infection risks. Exposure to infectious diseases—whether airborne, bloodborne, or vector-borne—is common. Medical professionals are also regularly exposed to chemical agents like formaldehyde, latex, and mercury, as well as ionizing radiation during diagnostic and therapeutic procedures. Reproductive risks, including infertility and miscarriage, affect both male and female physicians and are increasingly recognized as a concern beyond pregnancy. Other occupational dangers include slips, falls, chemical spills, noise, burns, and exposure to physical and emotional abuse or harassment, highlighting the broad spectrum of physical and psychosocial risks within the profession.

- **Shift work, circadian disruption, and CANCER risk**

In recent years, growing attention has been given to the potential link between shift work and cancer. In 2007, the International Agency for Research on Cancer (IARC) classified “shift work involving circadian disruption” as *probably carcinogenic to humans* (Group 2A), based on strong evidence from animal studies and limited but suggestive human data. This classification was initially driven by epidemiological research, especially nine early studies on breast cancer, six of which reported a positive association with prolonged night shift work. Since then, further studies have strengthened the evidence, linking night shift work not only to breast cancer but also to prostate, colorectal, and overall cancer incidence. Isolated associations have also been found with endometrial (positive), ovarian (negative), and non-Hodgkin lymphoma (positive) cancers.
In 2019, IARC reassessed the data and reaffirmed its classification. Although some biases affected the strength of the breast cancer evidence, a large pooled case-control study involving over 6,000 breast cancer cases from five countries (Germany, Canada, Australia, France, and Spain) reinforced the association—particularly in premenopausal women. Cohort studies, on the other hand, often lacked long-term follow-up and detailed exposure histories. Animal studies continued to provide robust evidence for the carcinogenic potential of light exposure during the biological night. Laboratory research confirmed that circadian disruption contributes to key cancer-related mechanisms, including immunosuppression, chronic inflammation, and increased cell proliferation. The biological mechanisms through which circadian disruption may promote cancer are complex and multifactorial. Three main pathways have been identified: suppression of melatonin secretion caused by nighttime light exposure; dysregulation of circadian clock genes (CCGs), which control hormone release, metabolism, DNA repair, and cell growth; and chronic sleep deprivation, which impairs immune surveillance and allows malignant cells to escape detection. Melatonin, in particular, plays a key regulatory role in reproductive hormone secretion via the hypothalamic-pituitary-gonadal axis. Animal studies show that melatonin modulates GnRH release and affects levels of LH, FSH, testosterone, and estrogen. In humans, circadian disruption may reduce melatonin and lead to increased secretion of sex hormones, potentially heightening cancer risk. Melatonin also directly counteracts the proliferative effects of estradiol on breast cancer cells, reducing their invasiveness and telomerase activity. Notably, around 20% of mammalian genes are circadian clock genes, and their altered expression has been linked to both cancer onset and progression.

- The role of Melatonin in the health impacts of night shift work

Melatonin plays a central role in mediating the adverse health effects associated with night shift

work. A meta-analysis has shown that night shift workers—especially those on permanent night schedules—have significantly lower melatonin levels, helping to explain many of the physiological disruptions linked to circadian misalignment.
Chronic melatonin suppression due to night work has been closely studied in relation to metabolic syndrome (MetS).

Impact on Physicians' mental health

Refer to Annex 2 for an extensive and complete literature review

- ✓ Emotional burden: Physicians often face life-or-death situations, which can generate a high level of emotional stress. The responsibility of making critical decisions about patients' health can be overwhelming. The impact on patients' lives means that the nature of medical work means that professionals often deal with difficult situations, such as suffering and death, which places a heavy emotional burden on them, balancing and isolating them from their personal lives.
- ✓ Extended training: The education and training to become a physician is extensive and rigorous, often requiring more than a decade of study and practice. This process can be exhausting both physically and mentally.
- ✓ Constant Pressure: The need to stay up to date with medical advances and new technologies, as well as the pressure to meet the expectations of patients and their families, and constant coercion from management, represent a significant burden.
- ✓ Impact on patients' lives: The nature of medical work means that doctors are often witness of difficult moments in people's lives.
- ✓ **Legal Liability**: Physicians face a high level of legal liability, meaning that any error can have serious consequences for both the patient and their career.

EUROPEAN LEGISLATION AND NATIONAL FRAMEWORKS (FEMS Country) about ARDUOUS and HAZARDOUS Jobs and Medical PROFESSION

European Framework

There is no specific legislation or policy at European level on the issue of arduous work; however this issue is intimately connected to occupational health and safety and prevention matters and the improvements in health and safety provisions were an early area for EU social policy harmonization. The Charter of Fundamental Rights (Article 31) on fair and just working conditions states that "every worker has the right to working conditions which respects his or her health, safety and dignity".
The International Labour Organization (ILO) Invalidity, Old-Age and Survivors' Benefits Convention, 1967 (No. 128), asserts that "[i]f the prescribed age is 65 years or higher, the age shall be lowered, under prescribed conditions, in respect of persons who have been engaged in occupations that are deemed by national legislation, for the purpose of old-age benefit, to be arduous or unhealthy" (article 15). The physical effort and strenuousness involved in certain professions justifies the worker's exit from the arduous or hazardous job since **workers need to be in good physical condition to exercise their job and might be unable to perform a physically strenuous activity well when at an older age.**
European Parliament Resolution of 12 December 2023 on mental health acknowledges the important role that the workplace can play in facilitating good mental health and recognises that healthy working conditions can have a positive impact on physical and mental health, well-being and productivity. In addition, it considers that essential service workers, such as in the health sector - partricularly shift workers- are subject to higher stress burdens, which might lead to burnout and disproportionate suicide rates.

The European Trade Union Confederation (ETUC) et al. adopted a RESOLUTION on the relationship between "arduous occupations" and "early retirement schemes", stating:
"*Reached on the basis of European multidisciplinary research, It should be clearly that all working conditions perform in shift or night work* ***must be considered as arduous****. Therefore shift and night work deserve special attention and a particular sui-generis approach."*
On June 2025, a parlamentarian question for written answer was presented to the Commission by several MEPs -Raffaele Topo (S&D), Alessandra Moretti (S&D), Elisabetta Gualmini (S&D), Brando Benifei (S&D), Pina Picierno (S&D), Pierfrancesco Maran (S&D), Stefano Bonaccini (S&D), Antonio Decaro (S&D), Giuseppe Lupo (S&D), Romana Jerković (S&D), Estelle Ceulemans (S&D), Dario Tamburrano (The Left), Kateřina Konečná (NI), Branislav Ondruš (NI), Diana Iovanovici Şoşoacă (NI), Flavio Tosi (PPE), Sebastian Everding (The Left), Aurelijus Veryga (ECR) on the subject of Working conditions of doctors in Europe
In a report published in 2016, the European Commission defined arduous work as follows:
"Occupations involving the exposure of the worker over a period of time to one or several factors leading to professional situations susceptible to leave long-lasting and irreversible effects on his/her health; these factors are related to physical constraints, psychosocial risks, an aggressive physical environment, working organisation and working rhythms, including shift work."
According to a recent study conducted by the European Federation of Salaried Doctors (FEMS), the working conditions of doctors meet all these criteria, particularly in the more demanding medical specialisations. Furthermore, the current shortage of doctors has further deteriorated their working conditions, increasing the physical and psychological demands of their profession2.
In light of the above:
1 Does the European Commission intend to promote a European initiative to define common criteria for fair remuneration, safe working hours, and the recognition of the physical and psychological risks faced by doctors as arduous or hazardous work?
2 Does the European Commission plan to initiate a dialogue with Member States and social partners with a view to harmonising the implementation of national legislative standards on this issue?
The European Working Time Directive (2003/88/EC) is designed to protect workers' health but it fails in guarantee doctors' health and safe. As highlighted in FEMS WhiteBook, the features of the medical profession, such as unpredictability, emergencies, and need for high and specific competencies —especially within surgical specialties—show that the Directive is neither respected nor well suited to medical practice. To be clear, a transplant surgeon or a pediatric anesthesiologist cannot be easily replaced when their working hours – according to the EWTD – have ended, yet they still have patients to treat.
Moreover, staff shortages and the ever-increasing demand for healthcare services mean that the EWTD is not effectively implemented and is widely disregarded in most European countries.

National Frameworks
The protection of doctors' health and the recognition of their work as "arduous" still face numerous obstacles at the national level. A survey conducted by FEMS in its 14 member countries found that in none of them is the work of employed doctors currently recognized as "arduous" (for more details, see the infosheets in Annex 1).
In Bulgaria and Romania, however, doctors, in very peculiar situations, have the possibility for early retirement.
In **Romania**, the official retirement age for doctors is 67 years. Doctors working in contact with radiation could retire after 25 years of working in radiology, usually at 55 years. The same for doctors dealing with infectious diseases.
In **Bulgaria**, doctors working with radiation retire earlier, approximately three to four years sooner than the general population—a temporal advantage in line with that granted to other high-risk

occupations across Europe.
In **Austria**, as of 1 January 2026, doctors working under particularly strenuous conditions—including night shifts—will be able to apply for retirement upon reaching their 60th birthday.
Italy also has a rule that, in theory, allows doctors on night duty (at least 12 consecutive hours, for a minimum of 64 nights per year, sustained for at least seven years out of the last ten) to qualify for early contributory seniority. Thanks to the 1.5 correction factor introduced by INPS – Italian National Institute for Social Security- in 2019, this requirement can be calculated as if it were about 42 shifts; however, to date this benefit has never actually been implemented.
In some of the countries analyzed, the concept of arduous or hazardous occupation is compensated by granting additional days of leave (refer to Annex I for details).
What emerges, however, is that while this benefit acknowledges the presence and potential seriousness of the risk, it does not provide actual protection or effective safeguards against it. This is demonstrated by the significant variability in the amount of leave granted and the lack of a systematic assessment of doctors' health conditions by medical specialty. Last but not the least, **this benefit is neither systematic nor consistently applied, and often remains theoretical in the face of severe staffing shortages.**
The FEMS is currently conducting a Europe-wide analysis through the project *"Shaping the Future of Doctors' Health"* which, among other objectives, aims to assess the health status of doctors by specialty and to track its possible evolution throughout their professional lives.

It is worth noting that in most countries, the recognition of "arduous" work relies solely on physical efforts and work schedules, neglecting the level of responsibility, mental and physical effort, and environmental stress.
Jobs classified as physically demanding typically share certain characteristics, such as high levels of physical exertion — including caloric expenditure — often carried out in difficult or harsh environments, such as confined or unhealthy spaces. The medical profession, particularly within hospitals or in emergency response settings, involves forms of physical and mental fatigue that are often significantly underestimated.
For example, standing for many hours in the operating room without the possibility of moving away from the surgical table — especially when combined with high levels of concentration and mental engagement — cannot be considered less exhausting or wearisome than other types of labor. Similarly, the stress experienced by those working in emergency and urgent care — where swift, time-sensitive decisions can mean the difference between life and death — triggers catecholamine surges that have a direct impact on healthcare workers' health.
However, it is important to reiterate what distinguishes physicians from other healthcare professionals and what significantly contributes to the wear and tear experienced by doctors leading to arduous conditions: physicians bear the moral and legal responsibility for therapeutic decisions and for the act of care itself. In some countries, such as Italy, this responsibility can even carry criminal implications, leading to high levels of stress and fear when taking charge of patients, particularly those in critical condition.

PROTECTING AND ENHANCING Physicians' Health in Arduous Occupations:
FEMS proposals and recommendations
For discussion and approval during General Assembly
The recognition of the medical profession as an arduous occupation entails the need to provide this category of workers with a set of benefits and working conditions designed **to prevent or mitigate the negative impact of medical practice on health and life expectancy,** as well as to compensate for the inevitable harm accumulated throughout a professional career.
The implementation of such protective and compensatory measures would inevitably have an

impact on workforce organization and on the allocation of financial resources within healthcare systems—particularly those allocated to medical staff. These implications must be carefully considered, especially in the current context of healthcare workforce shortages and budgetary constraints.

However, fiscal objectives cannot take precedence over the protection of public health, and above all, over the safeguarding of those who—despite fatigue, risk, stress, and sacrifice—continue to serve as the guarantors of collective health and well-being.

A recognition that is not only formal but also practical and substantial—of the physical and emotional toll, the level of risk, and the intensity of commitment required from physicians, especially in the most challenging settings—could represent a new factor of attractiveness for a profession that is increasingly being abandoned by younger generations. At the same time, it would act as a powerful motivational tool for practicing physicians across Europe, who are showing rising levels of dissatisfaction and detachment from their profession.

The following FEMS policy proposals aim to mitigate the negative effects of medical practice on physicians' health and/or to compensate for the risk or damage incurred during their working life. This rationale is consistent with the one applied to other categories of arduous or hazardous occupations:

1- **Raising Risk Awareness Among Doctors**

   COMMENT: Making physicians aware of the risks related to their daily activity is the first form of compensation in the absence of stronger protections from employers or relevant institutions. As workers—but above all as individuals—they can choose how to protect their physical and mental health.

   It is worth noting that in the absence of special benefits, workers in a competitive labour market will evaluate how arduous or hazardous a job is and will accept it over another job without such risks only if offered some offsetting advantage. The current choice of young doctors to avoid the most demanding fields of specialization proves their awareness about which fields of activity are more rewarding or less tiring and exhausting

2- **Reduced Working Hours Without Pay Cuts.**

   COMMENT: This would reduce exposure to harmful conditions, whether chemical, biological, environmental, or emotional—or to any effects that could not be prevented through the implementation of health and safety measures.

   In examples reported in the literature for other professions, the reduction is about 15–20% compared to standard working hours

3- **Age-Based Workload Reduction.**

   COMMENT: In line with physiological changes associated with aging, doctors should be granted the right to a reduced workload and increased rest time. This would help ensure that the quality of professional performance remains unaffected.

4- **Job Reassignment and Free Retraining.**

   COMMENT: This option is not applicable to all specialties. An optimal solution—also to ensure the transmission of valuable expertise and specific skills acquired over a career—would be to convert a portion of working hours into mentoring and on-the-job training for younger doctors or medical residents.

5- **Salary Increase as Compensatory Tool.**

   COMMENT: While a salary increase does not directly reduce the health impact of medical work, it enables doctors to plan for complementary pension schemes for early retirement, to purchase health insurance tailored to conditions or disabilities related to their

occupational health, to facilitate work–life balance, and to serve as compensation for the work performed.

6- **Enhanced Pension Contributions.**

COMMENT: Another form of special pension treatment is higher pension accrual rates, enabling doctors to accumulate a full pension over a reduced number of years than is normally required.

7- **Lower Retirement Age Without Pension Penalty.**

COMMENT: The aim of early retirement is not only to stop exposure to risk factors, but also—given a possible reduction in life expectancy—to offer the opportunity to enjoy retirement benefits for a period potentially equivalent to that of other professions.

A further challenge is that the link between occupations, premature erosion of work ability, and life expectancy is not always straightforward. It depends on the nature of the job, its actual content, working conditions, and the duration of exposure. It may also depend on genetic predispositions, race, geographical area, education level, and lifestyle.

In the case of physicians, it is worth citing the findings of the review "*Medical Specialties and Life Expectancy: An Analysis of Doctors' Obituaries 1997–2019".*

In the UK, the higher life expectancy observed among General Practitioners, compared to other specialties, may be more related to retirement behaviour than to occupational hazards alone. In fact, GPs are more likely to retire earlier and less likely to return to part-time work than hospital specialists. Retirement facilitates lifestyle changes that reduce cardiovascular risk—such as the end of shift work, increased physical activity, and lower stress—which may contribute to their longer life expectancy.

8- **Tailored Welfare and Insurance Plans.**

COMMENT: Providing doctors with insurance policies that guarantee coverage of health problems both during and after their working life (health insurance and long-term care insurance) can be considered an alternative form of protection.

It is essential that the benefits provided be agreed upon with the workforce and tailored to the specific needs of each professional.

9- **Family-Friendly and Work–Life Integration Policies**

COMMENT: Extending on-site childcare, flexible parental leave, and part-time career tracks with pro-rated benefits helps physicians balance professional duties with family responsibilities. Such measures are key to retaining female doctors and those with caregiving roles.

10- **Comprehensive Legal and Malpractice Support**

COMMENT: Establishing an independent legal aid fund or offering subsidized, pre-paid malpractice insurance relieves physicians from personal financial risk and anxiety related to litigation. Clear protocols for incident reporting and support during legal proceedings further reduce stress.

11- **Protected Non-Clinical Time for Research, Teaching, and Professional Development**

COMMENT: Allocating a guaranteed portion of contractual hours to academic activities or skill refreshers (e.g., simulation, evidence-based updates) not only enhances quality of care but also breaks the cycle of continuous clinical overload, contributing to longer-term retention and career satisfaction.

CONCLUSIONS

Medical work, as it is currently structured within European healthcare systems, clearly presents

characteristics of physical and mental strain: irregular and night shifts, high clinical responsibility, constant decision-making demands, exposure to biological and environmental risks, emotional pressure, and physical intensity. Despite this, the comparative analysis conducted by FEMS shows that in **none of the 14 member countries is the work of employed doctors formally recognised as "arduous"**, either in legal or social security terms.

The current socio-health context makes this gap even more critical. The increasing ageing of the general population and the growing demand for healthcare – also driven by a new perception of disease and well-being – clearly indicate that **pressure on European healthcare systems will not decrease in the short or medium term**. In this scenario, **shift and night work will remain a structural and unmodifiable characteristic** of healthcare professions.

The organisational measures currently in place to protect the medical profession – such as the European Working Time Directive (EWTD) or national policies – are no longer sufficient, especially in light of the significant ageing of the medical workforce (Health at a Glance 2024). Moreover, there is an increasing level of disaffection among doctors: young professionals struggle to find the motivation to enter the public system, while many experienced colleagues choose to leave it in favour of the private sector, which offers better work-life balance conditions.

FEMS is currently conducting a survey entitled "***Shaping the Future of Doctors' Health***", which aims to provide an updated picture of the health status of doctors, broken down by age and field of specialisation, and to assess possible correlations with work organisation and working hours. The results, expected in the coming months, will be essential in supporting evidence-based policies for protecting doctors' health.

At the same time, **the increasing digitalisation of healthcare services**, while hopefully leading to a reduction in bureaucratic and administrative burdens, is currently generating **additional workload**, especially in poorly organised settings with limited economic and structural resources. In these contexts, technical failures and inadequate digital literacy among staff increase the overall pressure instead of relieving it.

Artificial intelligence, too, though destined to play a major role in healthcare, **will not reduce the arduous nature of the medical profession**. First of all, the diagnostic and therapeutic choices remain the responsibility of the physician, especially in the absence of clear and defined regulations that establish clear boundaries and responsibilities between AI systems, the physician, and AI experts. Secondly, AI will not physically replace doctors in the most hands-on specialties, nor will it eliminate the need for night shifts or extended working hours.

it is necessary to formally recognise the medical profession as arduous work and to grant the corresponding benefits.

Trade unions, both national and European, like FEMS, should be actively involved in providing more information about the arduousness and hazardousness of work, as well as the most effective ways to protect workers.

The doctor is the fundamental pillar of healthcare because the act of care is entrusted to them.

Making the medical profession safer, more human, and more rewarding is a strategic investment in the future of the European healthcare system.

FEMS Policy Recommendations

In light of the current state of medical work across Europe, and based on the evidence collected by FEMS, we call upon national governments, European institutions, and relevant stakeholders to adopt the following measures:

1. Formal recognition of employed medical work as arduous

- Include the medical profession in national and European lists of arduous and hazardous occupations.

- Acknowledge the combination of night shifts, psychological stress, and high responsibility as qualifying factors for this classification.
- Ensure the legal and social security frameworks are adapted accordingly.

2. Establish early retirement options for doctors working under arduous conditions

- Introduce or apply effective early retirement schemes for doctors exposed to night work, radiation, high mental and emotional workload, or continuous on-call shifts.
- Apply correction factors in calculating retirement age for doctors, similar to those used for other high-risk professions.
- Monitor and ensure the effective implementation of these schemes, avoiding bureaucratic inaction.

3. Go beyond working hours: recognise the complexity and intensity of medical work

- Expand the criteria used to define arduous work to include responsibility levels, decision-making pressure, physical intensity, and emotional burden.
- Promote health risk assessments that go beyond time-based indicators and consider the full impact of the work environment on doctors' health.

4. Protect doctors' health across the career span

- Provide additional rest time and annual leave for doctors in high-stress or high-risk specialties
- Ensure that rights granted by law or collective agreements are effectively implemented and not made impossible due to staff shortages.
- Introduce structured health monitoring programmes for medical staff, particularly for those over 55.

5. Support smoother end-of-career transitions

- Develop targeted support for older doctors through:
- Lifelong learning and reskilling opportunities;
- Reduction in clinical hours or night shifts;
- Flexible working arrangements (e.g. job sharing, part-time);
- Adapting workplaces to age-related needs.

- Promote voluntary phased retirement schemes for medical staff.

6. Strengthen digital and organisational support

- Ensure that the digital transition in healthcare is accompanied by adequate resources, training, and technical support for professionals.
- Prevent increased workload due to malfunctioning digital systems or lack of IT literacy.
- Avoid the assumption that artificial intelligence can replace human presence in physically and emotionally demanding tasks.

7. Enhance the attractiveness and sustainability of the medical profession

- Reinforce public healthcare systems to make them more attractive for both young and senior doctors.
- Improve work-life balance by adjusting workloads and limiting excessive administrative duties.

- Provide structured psychological support for healthcare workers facing chronic stress and burnout.

8. Involve trade unions and professional associations in decision-making

- Ensure national and European trade unions and federations such as FEMS are fully involved in policy design, implementation, and monitoring.
- Use their expertise to assess risk factors, propose effective protective measures, and represent workers' voices in healthcare reform.

A resilient, equitable, and sustainable healthcare system is not possible without protecting the health and well-being of its doctors.

FEMS urges all responsible institutions to take immediate action and to acknowledge that safeguarding the medical profession is an urgent priority for the future of healthcare in Europe.

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