

SPINE20 recommendations to the G20 group

Executive summary

Ensuring access to quality spine care to prevent
disability throughout the world

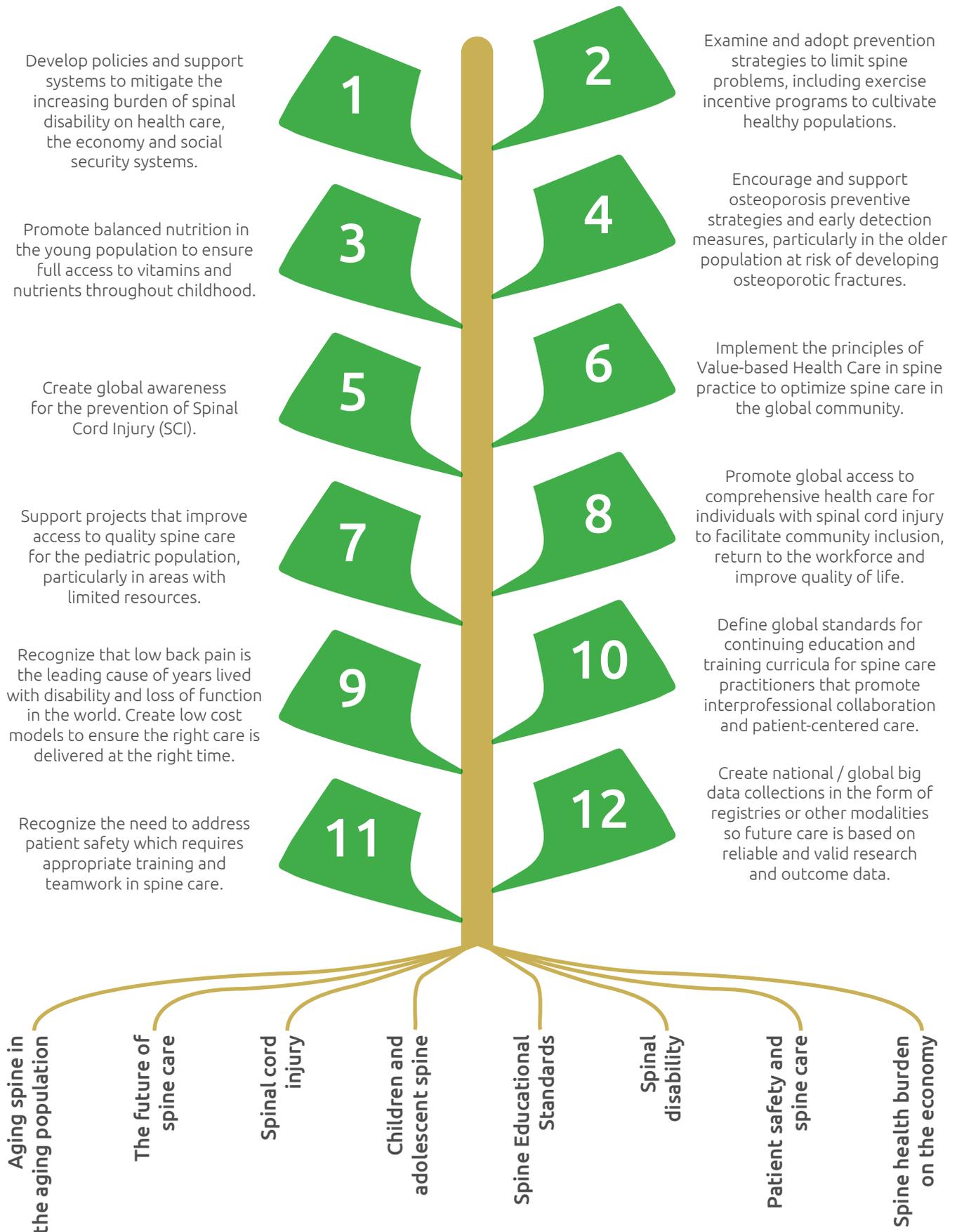


Contents

- 6 Introduction
- 6 Focus areas
 - 6 A. The economic burden of spine care
 - 7 B. Preventing spinal disorders
 - 9 C. Value-based spine care and safety
 - 12 D. Continuing education for spine care professionals
 - 13 E. The future of spine care
- 14 Moving forward
- 16 Acknowledgments
- 18 Speakers
- 19 SPINE20 team members

SPINE20 recommendations to the G20 group

RECOMMENDATIONS



Global access to spine care:
SPINE20 recommendations
to the G20 group

Introduction

The G20 countries (with UN member states) have committed to achieving universal healthcare coverage by 2030 through the adoption of Sustainable Development Goals.

Spinal disability is the costliest ailment facing the world today (second only to COVID-19). Aging populations and unhealthy lifestyles are expected to increase the prevalence of spine-related loss of function. Eighty percent of the adult global population experiences lower back pain during their lifetime. Of these, 30% never fully recover and many become permanently disabled. Disability due to spinal cord injuries is estimated to trigger costs ranging from USD 1.2 million to 5.1 million USD per lifetime per patient, depending on the age and the severity of the spinal cord injury.

The resulting inability to work often leads to poverty. Among the elderly, lower back pain is the leading cause of loss of activity in daily living. Spinal disability disproportionately affects women, the elderly, rural communities and lower income groups.

Focus areas

To highlight (and reduce) the impact of spinal disorders globally, SPINE20 is proposing a set of recommendations we encourage G20 healthcare systems to adopt: based on the best available evidence.

A. The economic burden of spine care

Recommendation 1:

Develop policies and support systems to mitigate the increasing burden of spinal disability on health care, the economy and social security systems

Decreased productivity and lower quality of life translate into high costs for both individuals and society. SPINE20 urges governments to promote spine health and evidence- and value-based care.



Spine-related disability amounts to 6% of the GDP in some countries.



Efficiency in the delivery of public services has a direct impact on poverty. According to the Millennium Challenge Corporation, countries with more effective governments have better education systems and more efficient health care. There is evidence that countries with independent, meritocratic bureaucracies do a better job of vaccinating children, protecting the most vulnerable members of society, reducing child mortality and making other health care improvements.

Studies have shown that public support for a policy can be increased by communicating evidence of its effectiveness. Although the increment of success may be moderate, these policies offer a more significant impact on cost and human well-being.

B. Preventing spinal disorders

Recommendation 2:

Examine and adopt prevention strategies to limit spine problems, including exercise incentive programs to cultivate healthy populations.

G20 governments can play a vital role in preventing spinal disorders by putting in place effective public health prevention strategies, policies and programs – for example:

- » **Raising awareness** of the various causes of spine problems (including occupational, psychological, social and medical factors)
- » Providing community **exercise programs and education**
- » Introducing effective **treatments** to combat the increasing global burden of spine disability

According to the WHO, insufficient physical activity is the highest risk factor for Non-Communicable Diseases (NCDs) globally. One quarter of adults and eight out of ten adolescents are not active enough.

Men and women are equally afflicted by lower back pain during their most productive years (between the ages of 30 and 50). In affected individuals, evidence suggests a 30% disability and loss of function.



Spinal disorders are the leading cause of long-term disability and loss of function worldwide.



Lower back pain affects 80-90% of the adult population in industrialized and emerging countries.



Chronic low back pain leads to loss of function, work ability, poverty and the ability to provide for oneself, one's family, and the community. Back pain is becoming more prevalent in the aging population, where it is the primary cause of loss of activity in daily living and loss of independence.

Recommendation 3:

Promote balanced nutrition in the young population, to ensure full access to vitamins and nutrients throughout childhood.

Prevention is one of the most important strategies in spine health, whether degeneration, deformity or trauma. For children, balanced nutrition is fundamental to development and spine health from childhood, adolescence, and adulthood through to old age. Nations must recognize that a balanced diet (through broad access to nutrients) and the fight against both malnutrition and obesity are key in preventing spinal disorders from an early age.



Spinal disorders can be prevented from an early age.



Recommendation 4:

Encourage and support osteoporosis preventive strategies and early detection measures, particularly in the older population at risk of developing osteoporotic fractures.

Osteoporosis-related fractures in the elderly population often result in chronic pain and disability and affect physical activity, quality of life and independence. 68% of women (twice the number of men) are likely to be afflicted. Educating the public and health care practitioners on the prevention strategies such as exercise and eliminating tobacco are instrumental in reducing osteoporosis it's related fractures. Education would also improve early detection of osteoporosis in high risk populations prior to developing osteoporosis-related fractures.

Risk assessment tools are widely available and have been proven effective in early osteoporosis detection to slow down bone loss, lower the risk of fracture, save costs, and improve quality of life.



2 out of 3 women are likely to experience osteoporosis-related fractures.



Recommendation 5:

Create global awareness for the prevention of Spinal Cord Injury (SCI).

Spinal cord injuries (SCI) occur through trauma such as motor vehicle crashes (MVCs), falls, violence, and sports. Prevention is better than the cure, particularly as there is currently no cure to reverse the paralysis that results from spinal cord injury. The Christopher Reeve Foundation, a leading organization in the prevention and treatment of SCI, projects that the United States alone could save an estimated USD 400 billion by providing SCI-based preventive measures.

SCI prevention must be addressed on many levels – public health, policy makers and society as a whole – to reduce human suffering, lower exorbitant medical costs and decrease indirect costs related to the loss of productivity, healthcare, community services and social support.



Paralysis caused by spinal cord injury cannot currently be cured. Prevention is essential.



C. Value-based spine care and safety

Recommendation 6:

Implement the principles of Value-based Health Care in spine practice to optimize spine care in the global community.

Value-based Health Care is a framework that seeks to reconstruct health care systems worldwide around health outcomes that matter to patients versus the cost of delivering that care. Standardized measurement tools are used to assess both outcomes and costs. Patients, providers, payers, suppliers, and society will all benefit from this approach.

Changing lifestyles around the world and aging populations are escalating disability from spinal disorders. The broad spectrum of spine pathologies, huge range of treatment options, diverse professional backgrounds of care providers and rapidly-evolving medical and surgical technologies emphasize the complexity of spine practice.



Value-based spine care reduces costs and decreases disability for a more productive population.



Value-based spine care must be implemented worldwide to decrease spinal disabilities and costs. These efforts will require advocacy, education, and government policies.

Recommendation 7:

Support projects that improve access to quality spine care for the pediatric population, particularly in areas with limited resources.

Diagnoses of spine disease in children and adolescents are often delayed or missed because the onset is usually very subtle and only becomes more obvious as the child grows. Early diagnosis makes a huge difference in the successful management of the pediatrics population. The most important factor for early diagnosis, management, and optimal care is access to multidisciplinary spine care.

Recommendation 8:

Promote global access to comprehensive health care for individuals with spinal cord injury to facilitate community inclusion, return to the workforce and improve quality of life.

Spinal cord injury health care and community management helps individuals achieve optimal functional independence by coping with loss of function, participating in the community and returning to the workforce. A team of healthcare providers from different specialties and support from the family and local community is required. Collaboration and coordination of care improves success rates in achieving specific goals of individual patients. This is best done in specialized centers, but these are lacking in many parts of the world.



Multidisciplinary pediatric spine care reduces costs, improves outcomes, prevents major disability and prevents life-threatening consequences.



Patients regain functional independence with the help of spinal cord injury health care and community management.



Recommendation 9:

Recognize that low back pain is the leading cause of years lived with disability and loss of function in the world. Create low cost models to ensure the right care is delivered at the right time

The World Health Organization's "Rehabilitation 2030" initiative highlighted the global unmet need for rehabilitation and called for immediate coordinated actions. Rehabilitation is an investment in human capital that contributes to health, economic and social development through the provision of interventions designed to reduce disability and to optimize functioning in individuals with health conditions so as to enable them to better interact with their environment. It is therefore urgent for governments to invest in evidence-based, accessible, and affordable rehabilitation to ensure that individuals can participate in education and work, be economically productive, and fulfil meaningful life roles.

An appropriate procedure or management strategy is defined as one in which the value (benefit per unit cost) is high. If the expected health benefit exceeds the expected negative consequences by a sufficiently wide margin, the procedure is worth undertaking. Appropriate use criteria indicate reasonable care based on available evidence combined with a rigorous, transparent recommendation process and well-defined scenarios. Appropriate use criteria specify when it is appropriate to perform a medical procedure or service. An appropriate procedure is one for which the expected health benefits exceed the expected health risks by a wide margin.



Expected health benefits must exceed the expected health risks by a wide margin.



D. Continuing education for spine care professionals

Recommendation 10:

Define global standards for continuing education and training curricula for spine care practitioners that promote interprofessional collaboration and patient-centered care.

Continuing education is required in all professions, but it is particularly relevant in the delivery of healthcare, helping professionals maintain their knowledge and skills.

Spine care knowledge advances at a fast pace. Treatments frequently require a cross-disciplinary team of specialists to decrease loss of function and prevent chronicity, thereby increasing an afflicted individual's independence and ability to participate in the community. This is particularly important for individuals with spinal cord injuries and care of the elderly with spine disease.

As a means of improving healthcare and optimizing resources, we recommend that governments devote resources to create interprofessional and patient-centered continuous education models for health practitioners involved in preventing, diagnosing and treating spine-related conditions.

Harmonized postgraduate curricula (continuing education) for professionals treating spine patients is recommended. Aligned curricula will make it possible to compare and evaluate outcomes between countries, helping to optimize scarce resources (value-based healthcare).



Continuing education allows practitioners to keep abreast of effective treatments and learn about new developments in their field.



Recommendation 11:

Recognize the need to address patient safety in spine care (requires appropriate training and teamwork).

Lack of a focus on patient safety can impact the overall outcomes in spine care, leading to social and economic expenditures that could otherwise be avoided. There is emerging literature that has shown how risk stratification programs, teamwork, and technology can all improve patient safety. These programs should be supported in ways that make them feasible, easy to implement, low cost, and with low regulatory burden.

Achieving patient safety is a continuous process and not a one-time event or short-term activity. Patient safety does not come in one single program and is not performed in isolation. Teamwork, multi-specialty care, and technology all have roles in patient safety.

The call for action from SPINE20 is to identify programs and processes that can improve overall patient safety while limiting burden on physicians and providers. This will lead to better adoption of programs dedicated to patient safety, improve patient outcomes and minimize costs associated with spine care.

E. The future of spine care

Recommendation 12:

Create national / global big data collections in the form of registries or other modalities so future care is based on reliable and valid research and outcome data.

One effective method of using patient outcome data to improve health care value is disease registries. An international study of 13 registries in five countries (Australia, Denmark, Sweden, the United Kingdom, and the United States) suggests that by making outcome data transparent to both practitioners and the public, well-managed



Programs and processes that improve patient safety help improve patient outcomes and minimize spine care costs.



Registries and technical advancements in spine care have significant potential to improve outcomes and save costs.



registries enable medical professionals to engage in continuous learning and research, and to identify and share best clinical practices of value, saving substantial costs.

Advancements in spine care such as big data, computer vision, machine learning, artificial intelligence, virtual and augmented reality, navigation robotics technology, telemedicine and day care centers have significant potential to improve outcomes.

Strategies should be framed on how to improve global access to these advancements in spine care. Global access to affordable and quality spine care will be in accordance with sustainable development goals.

Moving forward:

SPINE20 would be pleased to act as a resource for G20 nations and beyond to provide governments with the expertise needed to improve spine care around the globe.

We propose the following steps for exploring/implementing our global spine recommendations:

- » Organize introduction meetings with key stakeholders and decision makers to raise awareness and explore specific topics of interest
- » Engage an independent body to conduct a high-level gap assessment (“health check”) comparing the progress of each G20 nation on each of the 12 SPINE20 recommendations:
 - › What is in place already today?
 - › What additional steps would bring the greatest value/impact?
 - › What best practice ideas are worth sharing across all G20 countries?
- » Develop a clear calendar of activities and form task-force groups to work on forming evidence-based policy recommendations

For more information, supportive data, references and useful links, please refer to the detailed SPINE20 Recommendation Packs on <https://spine20.org/event/statements-and-recommendations/>.

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Acknowledgments

The following societies, organizations, journals and individuals participated, debated and approved the SPINE20 Executive Summary at the SPINE20 Inaugural hybrid meeting November 10-11, 2020 held in Riyadh, Saudi Arabia.

Abdulaziz Almutair, Kuwait
 Abdulaziz Hazazi, Saudi Arabia
 Abdulkarim Al Rabie, Saudi Arabia
 Abdullah Almuahaya, Saudi Arabia
 Abdullah AlOthman, Saudi Arabia
 Abdullah Alshehri, Saudi Arabia
 Abdullah Kaki, Saudi Arabia
 Abdulmonem Alsiddiky, Saudi Arabia
 Abdulrahman Alanazi, Saudi Arabia
 Abdulrahman albuijan, Saudi Arabia
 Abdulrazzaq Alobai, Kuwait
 Abdulwahed Barnawi, Saudi Arabia
 Abdurrahman Alarjani, Saudi Arabia
 Adam Wilkey , UK
 Adnan Alkandari, Kuwait
 Ahmed Al Jishi, Saudi Arabia
 Alanoud Alrasheed, Saudi Arabia
 Alberto Diez Ulloa, Spain
 Alessandro Ramieri, Italy
 Alexandre Rasouli, USA
 Alfonso Vázquez Míguez, Spain
 Ali Abomadawi, Egypt
 Ali Albarrati, Saudi Arabia
 Ali Aljuzair, Saudi Arabia
 Ali Alshami, Saudi Arabia
 Ali Alshoaibi, Saudi Arabia
 Almamoon Justaniah, Saudi Arabia
 Ameerah Al-Harathi, Saudi Arabia
 Amjad Mardini, Saudi Arabia
 Amro Al-habib, Saudi Arabia
 Andrea Piazzolla, Italy
 Anouar Bourghli, Saudi Arabia
 Anwar Alrabiah, Saudi Arabia
 Anwar Mohammed, Saudi Arabia
 Arwa AlOnayzan, Saudi Arabia
 Ayman Simbawah, Saudi Arabia
 Ayman Tayeb, Saudi Arabia
 Bachar Harfouche, Lebanon
 Bander Alrashedan, Saudi Arabia
 Baron Kalfopulos, Mexico
 Baron Zarate Kalfopulos, Mexico
 Bhavuk Garg, India
 Cezar Popescu, Romania
 Charanjit Singh Dhillion, India
 Dalia Alemam, Saudi Arabia
 David Pinilla, Spain
 Everard Munting , Belgium
 Fadi Alghareeb, Saudi Arabia
 Fahad Abduljabbar, Saudi Arabia
 Faris Alodaibi, Saudi Arabia
 Fatimah A Swead, Saudi Arabia
 Firas Alhosban, Jordan
 Habib Aletani, Saudi Arabia
 Halme Jarkko, Finland
 Hanan Alrayes, Saudi Arabia
 Hani Alsulaimany, Saudi Arabia
 Hani Alzarra, Saudi Arabia
 Hashim Balbaid, Saudi Arabia
 Hassan Serhan, USA
 Hesham Abu Galila, Saudi Arabia
 Husam Alhabib, Saudi Arabia
 Hussam Hamdan, Saudi Arabia
 Hyeun-Sung Kim, Saudi Arabia
 Ibrahim Almakhayitah, Saudi Arabia
 Ibrahim Alnaami, Saudi Arabia
 Ibrahim Assiri, Saudi Arabia
 Ioannis Magras, Greece
 Isam Khoja, Saudi Arabia
 Janardhan Aithal, India
 Johan van Lerbeirghe, Belgium
 Julie Lyn Noël, Switzerland
 Khaled Al Ali, UAE
 Khaled Al-Assiri, Saudi Arabia
 khaled Alkuwari, Bahrain
 Khaled Alzahrani, Saudi Arabia
 Khalid AlSaleh, Saudi Arabia
 Khalid Batarji, Saudi Arabia
 Khalid Siddiqui, Saudi Arabia
 Liu Baoge, China
 Maan Kattan, Saudi Arabia
 Mahdi Bassi, Saudi Arabia
 Maher Alhejji, Saudi Arabia

Mai Aldera, Saudi Arabia
 Majed Abaalkhail, Saudi Arabia
 Mario Di Silvestre, Italy
 Markus Arand, Germany
 Marwan Alkishi, Saudi Arabia
 Mohamed Abdelwanis, Egypt
 Mohamed Alshumrani, Saudi Arabia
 Mohamed El Sharkawi, Egypt
 Mohamed Khattab, Egypt
 Mohamed Solh, Saudi Arabia
 Mohamed Wafa, Egypt
 Mohammad Abdullatief, Saudi Arabia
 Mohammad Alshahrani, Saudi Arabia
 Mohammed Alqasheesh, Saudi Arabia
 Mohammed Barja, Saudi Arabia
 Mohmmad Khashab, Saudi Arabia
 Muath Abualfaraj, Saudi Arabia
 Mubarak Algahtany, Saudi Arabia
 Muhammad Qureshi, Saudi Arabia
 Muhammad Sohail, Pakistan
 Nayef bin Dajim, Saudi Arabia
 Neeraj Gupta, India
 Omar Alrushid, Saudi Arabia
 Osama Alahdal, Saudi Arabia
 Osama Alrehaili, Saudi Arabia
 Osvaldo Mazza, Italy
 Othman Alkassabi, Saudi Arabia
 Paul Rubery, USA
 Peter Vajkoczy, Germany
 Radchenko Volodymyr, Ukraine
 Rajani Mullerpatan, India
 Raju Parasher, India
 Reem Albnayan, Saudi Arabia
 Richard Brown, Canada
 Robert Meves, Brazil
 Rosario Rodríguez, Spain
 Ruth Marshall, Australia
 Saad Surur, Saudi Arabia
 Salah A Alakkad, Saudi Arabia
 Salah Fallatah, Saudi Arabia
 Salahaddeen Khalifah, Saudi Arabia
 Saleh Alsulaimani, Saudi Arabia
 Saleh Baeesa, Saudi Arabia
 Salem Baeshen, Saudi Arabia
 Sales Khabti, Saudi Arabia
 Sameh Aboelfotouh, UAE
 Samir Alsayegh, Saudi Arabia
 Saumyajit Basu, India
 Scott Haldeman, USA
 Serhan Hassan, USA
 Shadi Shihata, Saudi Arabia
 Shankar Acharya, India
 Sultan Aldebeyan, Saudi Arabia
 Suoruq Alshamrani, Saudi Arabia
 Tammam Mohammad, Saudi Arabia
 Tannoury Tony, USA
 Tiziana Greggi, Italy
 Ulf Liljenqvist, Germany
 Wael Alshaya, Saudi Arabia
 Wael Koptan, Egypt
 Wafa Alduais, Saudi Arabia
 Waleed Awwad, Saudi Arabia
 Wasef Al Sebai, Saudi Arabia
 Yahya H. Khormi, Saudi Arabia
 Yaser Suwaidan, Saudi Arabia
 Yasser Albrikeet, Saudi Arabia
 Young-Hoon Kim, South Korea
 Youssry Elhawary, Egypt
 Zain Jamjoom, Saudi Arabia
 Brazilian Spine Society
 Egyptian Scoliosis Society
 Egyptian Spine Society
 Egyptian Spine Study Group
 Emirate Society of neurological Surgery
 Hellenic Spine Society
 International Musculoskeletal Society
 International Spinal Cord Society
 Jordan Spine & Pain Management Society
 Kuwait Spine Society
 Mexican Society of Spine Surgeons
 Romanian Society of Spine Surgery
 Saudi interventional Radiology Society
 Saudi Orthopaedic Association
 Saudi Physical Therapy Association
 Saudi Rheumatology Society
 Saudi society of Neurological Surgery
 Saudi Society of Pain Medicine
 Society of Indian Physiotherapist
 Society of Spine Surgeons of Pakistan
 Spanish Society of Vertebral and Spinal Cord Surgery
 Spanish Spine Society (GEER)
 World Federation of Chiropractic
 World Spine Care Europe
 European Spine Journal
 Global Spine Journal

Speakers

The following esteemed lecturers gave evidence based presentations at the SPINE20 Inaugural virtual meeting November 10-11, 2020 held in Riyadh, Saudi Arabia. The presentations were organized in eight symposia and covered; The Aging Spine in the Aging Population, Future of Spine Care, Spinal Cord Injury, Children and Adolescent Spine, Spine Educational Standards, Spine Related Disabilities and Spine Health Burden of Economy.

Ajoy Prasad Shetty, India
Alan Hilibrand, USA
Alex Vaccaro, USA
Alexandra Rauch, Switzerland
Andrea Luca, Italy
Andrew Briggs, Australia
Antonello Caserta, Italy
Carlo Ruosi, Italy
David Wong, USA
Dominique Rothenfluh, UK
Donata Peroni, Italy
Hazzaa Al Hazzaa, Saudi Arabia
Jamiu O. Busari, Netherlands
Joseph Ihm, USA
Kern Singh, USA
Majed AlOsaimi, Saudi Arabia
Marco Brayda Bruno, Italy
Marco Crostelli, Italy
Mehmet Zileli,, Turkey
Michael Fehlings, Canada
Pierre Côté, Canada
Rachid Salmi, France
Robert Gunzburg, Belgium
Sami Haddadin, Germany
Sigurd Berven, USA
Suken Shah, USA
Tim Pigott, UK

SPINE20 team members

The following societies represented by the inaugural team members compiled, discussed, designed and approved all recommendations before presented at SPINE20 Inaugural virtual meeting November 10-11, 2020 held in Riyadh, Saudi Arabia.

Saudi Spine Society (SSS)

EUROSPINE

North American Spine Society (NASS)

German Spine Society (DWG)

Association of Spine Surgeons of India (ASSI)

Italian Spine Society

Sami AlEissa, Saudi Arabia

Thomas Blattert, Germany

Eric Truumees, USA

Margareta Nordin, France

Faisal Konbaz, Saudi Arabia

Eric Muehlbauer, USA

Frank Kandziora, Germany

Hana AlSobayel, Saudi Arabia

Harvinder Chhabra, India

Koji Tamai, Japan

Marco Teli, Italy

Paulo Pereira, Portugal

Ahmed Alturkistany, Saudi Arabia

Bernardo Misaggi, Italy

Edward Dohring, USA

Fahad Alhelal, Saudi Arabia

Frank Kandziora, Germany

Guisepe Costanzo, Italy

Jeffrey Wang, USA

Jörg Franke, Germany

Michael Piccirillo, Switzerland

Shanmuganathan Rajasekaran, India

Sohail Bajammal, Saudi Arabia

William Sullivan, USA

Yahya Alqahtani, Saudi Arabia

Abdullah AlSaeed, Saudi Arabia



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