

Osteoporosis management during the COVID-19 pandemic – Position paper

Rodrigues AM¹, Romeu JC², Canas da Silva J³, Tavares-Costa J⁴, Faustino A⁵, Vaz C⁶, Pereira da Silva JA⁷, Canhão H⁸,
on behalf of the Portuguese health professionals and patients dedicated to osteoporosis

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ABSTRACT

COVID-19 pandemic significantly increased the already large number of victims of osteoporosis in Portugal. Osteoporosis outpatient clinics were either closed or had limited presential appointments. Many hospitals reduced orthopaedic services to make space for patients with COVID-19. In additions the volunteer or forced sedentarism, as imposed by the pandemic, increased the risk of falls and fractures drastically. It urges to intensify the current efforts to improve the management of bone health, and to prioritize fragility fracture care and prevention. This paper addresses the challenges in osteoporosis management during the COVID-19 pandemic and provides a guidance on osteoporosis management. This position paper is a joint initiative of several health professionals and patients dedicated to osteoporosis.

Keywords: Fractures; Covid-19; Osteoporosis

INTRODUCTION

The COVID-19 pandemic has suddenly and dramatically affected health services and economies all over the world. The emergency state was declared in Portugal in March 2020, and non-urgent healthcare was diverted to the fight against the pandemic¹. A lockdown was also ordered, especially for those who were considered at

high risk for the disease, mostly people above 65 years old and/or who presented chronic pathologies (e.g., high blood pressure, diabetes, cardiovascular diseases, lung diseases, cancer, and immune system disorders). This pandemic has also led to a profound reorganization of all health systems, aiming to increase their response capacity and reduce the risk of intra-hospital contamination. As in many countries, the Directorate-General of Health (DGS) issued the guidelines for the interruption of elective activities, namely in-person consultations and non-urgent complementary exams. This affected osteoporosis patients significantly and may lead to a significant increase in osteoporotic fractures worldwide, including Portugal.

Osteoporotic fractures are one of the main causes of morbidity, mortality, and loss of functional independence in the elderly.² About 740.000 people die globally from osteoporotic hip fractures every year². It is estimated that about 1.500 people die in Portugal every year as a direct consequence of the approximately 12.000 osteoporotic hip fractures and this number increases every year³.

We cannot disregard the proper follow-up of patients who suffer from osteoporosis and osteoporotic fractures during the pandemic. It is important to allocate resources to this elderly, vulnerable population so that they can overcome the limitations in the access to the health system, prevent the interruption of osteoporosis therapy and mitigate social isolation and decreased physical activity.

1. Comprehensive Health Research Center (CHRC), NOVA Medical School, NOVA University of Lisbon; EpiDoc Unit, CEDOC, NOVA Medical School, NOVA University of Lisbon; Sociedade Portuguesa de Reumatologia; Hospital do Santo Espírito da Ilha Terceira;
2. Serviço de Reumatologia e Doenças Ósseas Metabólicas, Hospital de Santa Maria, CHLN, Centro Académico de Medicina de Lisboa, Portugal;
3. Rheumatology Department, Hospital Garcia de Orta, Almada, Portugal;
4. Rheumatology Department, Unidade Local de Saúde do Alto Minho, Hospital Conde de Bertiandos, Ponte de Lima, Portugal;

5. Instituto Português de Reumatologia, Lisbon, Portugal;
6. Rheumatology Department, Centro Hospitalar Universitário de S. João, Faculdade de Medicina do Porto Porto, Portugal;
7. Rheumatology Department, Centro Hospitalar e Universitário de Coimbra, Clínica Universitária de Reumatologia, University of Coimbra, Portugal;
8. Comprehensive Health Research Center (CHRC), NOVA Medical School, NOVA University of Lisbon; EpiDoc Unit, CEDOC, NOVA Medical School, NOVA University of Lisbon; Sociedade Portuguesa de Reumatologia; Rheumatology Unit, CHULC-Hospital Curry Cabral.

This paper is a joint initiative of health professionals and patients dedicated to this subject: *Sociedade Portuguesa de Reumatologia* (SPR), *Sociedade Portuguesa de Osteoporose e Doenças Ósseas Metabólicas* (SPODOM), *Associação Nacional contra a Osteoporose* (APOROS), *Liga Portuguesa contra as Doenças Reumáticas* (LPCDR), and *Associação Portuguesa de Profissionais de Saúde em Reumatologia* (APPS REUMA). It alerts for the following challenges in osteoporosis management during the COVID-19 pandemic, while suggesting how they can be solved:

ACCESS TO THE HEALTH SYSTEM

A. POSTPONED DIAGNOSIS AND INTERRUPTION OF THE FOLLOW-UP OF OSTEOPOROSIS PATIENTS

According to the information given by the Minister of Health, and because of the pandemic, until September 2020 there were 1.069.748 less hospital consultations than in the same period in 2019⁴. Complementary diagnostic procedures and therapies were also cancelled in the same proportion. Concurrently, there was an increase in the number of patients who did not attend their appointments, probably by fear of being contaminated with SARS-CoV-2.

Most osteoporosis patients are diagnosed and followed in primary healthcare. The difficulties in accessing the health system may have postponed the diagnosis of new patients and interrupted the follow-up of those who had already been diagnosed. In addition, osteoporosis outpatient clinics were either closed or had limited presential appointments. Many hospitals reduced orthopaedic services to make space for patients with COVID-19. Although telemedicine was promoted, this is far from being generalized in our healthcare system.

To respond to the threat posed to the health systems, it is important to prioritize the overall health of older adults, and to advocate for acute and long-term fragility fracture care and prevention through regular evaluation of patients fracture risk (using FRAX tool) in all clinical appointments made not only in person but also via telemedicine. Telephone and video consultations has become an essential tool to assure the regular follow-up of osteoporosis patients and should be facilitated and largely adopted by the national health services providers. The authors of this position paper suggest the implementation of the National Plan of Telemedicine (2019-2022) already defined by the National Health Directorate⁵.

B. INTERRUPTING OSTEOPOROSIS TREATMENT

In light of these data, we are worried that many osteoporosis patients have interrupted their follow-up appointments and treatments. This can also be the case of patients with osteoporotic fractures, even with their increased risk of death. Indeed, between March 16 and the end of September of 2020, there were less 1.3 million urgent medical assistance, when compared with the same period of 2019⁶.

Moreover, the impact of the exceptional and temporary regime that sets forth automatic prescription renewals for chronic illnesses to prevent people from going to health units due to COVID-19 on the adherence of osteoporosis patients to therapeutics is still unknown⁶.

Considering these facts, it is worth remembering that osteoporotic fractures kill! And when they do not kill, they are the cause for functional disability and dependence of the elderly.

One of the main challenges when treating osteoporosis is the high therapy abandonment rates, even for those who have already sustained fractures. In the scope of this pandemic, it is essential that treating physicians underline the need for patients to keep their treatments and inform those patients that neither osteoporosis nor osteoporosis treatments are associated with a higher risk of getting an infection by SARS-CoV-2.

Lack of proper treatment or its interruption leads to a preventable increase in the risk of fractures and deaths.

The continuity of care is a pre-requisite for treatment success. The importance of guaranteeing adherence to treatment should be emphasized in all clinical appointments. To increase adherence to treatment and health literacy, regular contacts by health professionals, such as nurses (phone or video appointments), should be implemented.

RECOMMENDATION FOR RHEUMATIC AND MUSCULOSKELETAL DISEASES PATIENTS

- Fracture risk prediction should be made to older adults in primary care clinical appointments, via telemedicine or in person.
- The regular follow-up of osteoporosis patients is recommended, both in person and via telemedicine, according to the resources of the health service and/or patient preferences.
- Proper patient care must be guaranteed, as well as the monitoring of phosphate and calcium metabolism and the assessment of the need to take Vitamin D supplements.

INCREASE OF RISK FACTORS FOR FRACTURES DURING THE PANDEMIC

The lockdown imposed on the population, especially the elderly, results, *per se*, in an increased prevalence of the risk factors for osteoporotic fractures:

A. REDUCED PHYSICAL ACTIVITY

Excess, volunteer or forced sedentarism, as imposed by the pandemic, increases the risk of falls and fractures drastically¹. That is why we recommend that people maintain or resume physical activity gradually, while keeping social distance, using masks, and sanitizing their hands, as per DGS recommendations. Regular physical activity (walking outdoors, light to moderate aerobic workouts) is one of the pillars of the non-pharmacological treatment of osteoporosis¹.

B. REDUCED VITAMIN D LEVELS

The lockdown may have also affected the levels of vitamin D for the lack of sun exposure. Vitamin D is fundamental for maintaining healthy bones and muscular function and is obtained essentially through sun exposure¹. Vitamin D supplements should be considered where proper sun exposure is not possible.

C. INCREASED SOCIAL ISOLATION

Increased social isolation of the elderly imposed by the lockdown may have contributed to the cognitive impairment of this population and consequently to a lack of adherence to proper treatment and dietary care. Isolation of the elderly also makes them engage in activities that pose a greater risk for falling and fractures, which is worsened by the lack of prompt assistance in case of an accident.

For these reasons, all signatory entities recognize that it is their ethical imperative to appeal to health services, families and carers of elderly people to see all treatments and care reinforced, instead of disregarded, so that osteoporotic fractures can be prevented.

Recommendations are that osteoporosis treatments are not interrupted and that patients are followed closely, using telemedicine if required.

RECOMMENDATION FOR RHEUMATIC AND MUSCULOSKELETAL DISEASES PATIENTS

- Physical therapy programs can be performed in person or from a distance by video call.

RECOMMENDATION FOR RHEUMATIC AND MUSCULOSKELETAL DISEASES PATIENTS

YOUR BONE HEALTH DEPENDS ON YOUR LIFESTYLE HABITS:

- Stay active, if possible: workout for at least 30 minutes a day (go for a walk near your residence area, making sure you respect social distancing);
- Eat a healthy diet: consume foods that are rich in calcium (e.g. milk, yoghurt, fresh cheese), and eat meat, fish or eggs at main meals;
- Speak to your doctor about the need to take Vitamin D supplements;
- Keep in touch with your friends and neighbors by using the telephone or new technologies, because a nice talk helps us keep “alive” and healthy;
- Do not suspend your osteoporosis medication: contact your doctor in case you have any doubts;
- See your doctor regularly: teleconsultation may be a safe alternative for you.

CORRESPONDENCE TO

Ana Maria Ferreira Rodrigues
CEDOC - Centro de Estudos de Doenças Crónicas, Rua Câmara Pestana 6-6A
Edifício CEDOC II, 1150-082 Lisboa
E-mail: anamfrodriques@gmail.com

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