



Follow-up in Fracture Liaisons Services: the involvement of general practitioners and fracture nurses is urgently needed

Willem F. Lems^{1,2} · Joop P. van den Bergh^{3,4} · Piet Geusens^{4,5}

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Focusing on fracture prevention in the elderly with a recent clinical fracture is important, since clinical fractures are usually easy to diagnose and associated with a doubling of subsequent fracture risk [1]. Moreover, the risk of subsequent fracture is highest in the first years following an index clinical fracture, which is referred to as the high imminent risk of subsequent fracture [2, 3].

In 2003, Mc Lellan et al. published the first paper on the systematic process of taking responsibility for identification of all 50+ patients with a recent clinical fracture, performing diagnostic evaluations and making drug treatment recommendations and a follow-up program, the so-called Fracture Liaison Service (FLS) [4]. In many countries, GPs have a crucial role in the follow-up, to educate patients about lifestyle measures (adequate calcium, vitamin D, exercises), to continue osteoporotic drug treatment, and to switch to other osteoporotic drugs when indicated (usually after consultation with FLS).

Since then, there have been an increasing number of studies and international guidelines on subsequent fracture prevention [5, 6]. This contributed to the initiation of many FLS services worldwide, and the introduction of the IOF Capture the Fracture Program, that described in detail 11 Key Performance Indicators (KPIs) that are necessary for a successful organization of the FLS service [7].

In recent years, new data have demonstrated and emphasized the clinical relevance of FLS. In a study comparing pre-FLS with post-FLS from Maastricht, a reduction of 33% in recurrent major and hip fractures was observed in a 3-year study [8], and in a systematic review, a lower mortality risk was observed after the introduction of FLS care [9]. It can be assumed that these favorable data can not only be explained by the use of anti-osteoporotic medication, but also by FLS-related procedures, such as screening for associated diseases and comorbidities (including secondary causes of osteoporosis) and fall risk. Additionally, it was modelled that the extra costs for FLS services were around £8000 per QALY, thus highly cost-effective in many countries [10].

Thus, the FLS service is our strongest armentarium in the prevention of imminent subsequent fractures. For this reason, consensus recommendations for long-term osteoporosis care for patients attending Australian FLS services are very welcome [11]. It is important to note that the long-term care of osteoporosis was studied, since adherence to therapy is one of the greatest issues: in a systematic review of 540 published studies, the persistence of oral bisphosphonates varied from 18 to 75% in the first year and 13 to 72% after 2 years, with only 2 studies over 3 years and none with longer follow-up [12]. Thus, in the real-world setting, recorded persistence of antiosteoporosis therapy after initiation of treatment at the FLS is far from optimal, and one of the biggest challenges for the coming years is to improve adherence to therapy: the help from fracture nurses and general practitioners will be very welcome.

Evaluation of the process of subsequent fracture prevention at the FLS is of great importance, and the authors strived for consensus among 37 panelists, involved in FLS care in their own hospital or region. Consensus was developed using the Delphi method, with a preparatory round and two additional rounds. After the first round, consensus was found in 24 out of 34 statements; in the second round, consensus was found for 8 statements (thus for 2 statements, no consensus was achieved at the end).

✉ Willem F. Lems
wf.lems@amsterdamumc.nl

¹ Department of Rheumatology, Amsterdam UMC, Amsterdam, the Netherlands

² Department of Rheumatology, Reade, Amsterdam, the Netherlands

³ Department of Internal Medicine, VieCuri Medical Center, Venlo, the Netherlands

⁴ Department of Internal Medicine, Maastricht University Medical Center, Maastricht, the Netherlands

⁵ Department of Medicine and Life Sciences, Hasselt University, Hasselt, Belgium

In the manuscript, consensus was achieved in 32 out of 34 statements, with Likert consensus scores > 5 (out of 6, 1 being the lowest level of agreement, 6 the highest) for all statements. This is a favorable and important result that supports the consistency and benchmarking of clinical practice in the FLS in Australia. There is a clear consensus regarding the need for optimal patient education, optimizing communication between the FLS and GPs, and the importance of the relationship between GPs and osteoporotic patients. However, consensus in a Delphi meeting is not the same as adequate implementation in daily practice, but an important first step.

In contrast, no consensus was achieved in the statement that “Australian primary care aims to provide accessible, comprehensive, continuing and coordinated care for patients with chronic diseases and is the most appropriate setting for the long-term monitoring and management of patients with osteoporosis.” This is clearly disappointing since long-term persistence is crucial for osteoporosis care. Several possible explanations are provided in the discussion. The FLS clinicians had a lack of confidence in GPs and primary care systems, perceived the medical knowledge of GPs around osteoporosis as variable, and raised the concern that GPs were overloaded with many other extra tasks, not only in the follow-up of patients with osteoporosis. They called to address this crisis of confidence in Australia to ameliorate the GP-patient and GP-specialist relationship and discussed an example of Spain about the role of the GP in long-term follow-up, entitled “best practice framework of FLS in Spain and their coordination of primary care,” in which 11 primary care doctors and 8 fracture nurses were enrolled [13]. We recently finished the Dutch multidisciplinary guideline Osteoporosis and Fracture Prevention, which was developed by 7 representatives of medical specialties (endocrinology, rheumatology, geriatrics, and orthopedics), 2 representatives of GPs, 1 representative of fracture nurses, and 1 of the patients organization [14].

So, the strength of the study is that, following a Delphi method, 37 local experts, all involved in an FLS, have worked on a consensus model on how to optimize FLS care. The most serious weakness of the study is the lack of GPs among the 37 panelists (only 2 GPs in the preparatory round, no GP in the 2 Delphi rounds). We miss the explanation for enrolling only two GPs, and we believe this is crucial. Maybe they were not invited (an omission, but this can be corrected in a subsequent survey). It is also possible, more worrisome, that more than two GPs were invited, but many of them did not join the consensus discussion, which probably reflects a lack of time or interest of the GPs in osteoporosis. However, this is not unique; in a recent Delphi consensus on osteoporosis from Spain, 80 panelists participated, and none of them worked as a GP [15]. Another point is that only two patients/consumers were invited. In our opinion, this is a limitation, since it

is very likely that there are enough patients able and willing to participate in consensus group meetings. Finally, it would be attractive to include policymakers in the consensus group, which might have a favorable effect on implementation.

The issue is alarming: it does not make much sense when FLS services, usually led by medical specialists, worldwide identify patients with a fracture 50 years and over, and start, after DXA/VFA and laboratory examination, with anti-osteoporosis drugs, while there is no adequate follow-up and suboptimal adherence to therapy is very likely. Long-term follow-up by medical specialists is not feasible, because of the costs, travel distances for patients, and limited capacity of medical specialists (in many countries). An attractive option is referral to their GP, but they sometimes cannot continue the care of osteoporotic patients because of overloading, lack of interest, or for other reasons. A third option is referral to a fracture nurse, usually highly motivated health professionals, but their education is often suboptimal, and the number of fracture nurses is also limited. A fourth option is a patient-led digital monitoring system, which is in our opinion an item for the research agenda.

In our opinion, achieving consensus for recommendations of FLS services according to the Delphi method may lead to a valuable set of recommendations for Australia. Some of these recommendations are likely to be useful for other countries, such as the importance of patient education and optimizing communication between FLS and GPs. Since there are large differences in life expectancy, fracture risk, access to DXA and VFA, approval and reimbursement of anti-osteoporotic drugs, and organization of patient care, other recommendations should be country-specific [16, 17]. We suppose that it is useful to stimulate others to develop recommendations for their own country with the use of the Delphi method, or another validated procedure, but we also strongly suggest incorporating a substantial number of GPs and of osteoporotic patients, and, preferably also to include policymakers, to coordinate action and provide a set of recommendations that is financially realistic.

Declarations

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