

# Management of older patients: “Need for a multidisciplinary approach”

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## The older population is growing massively all over the world

Today, **8.5 percent of people are aged over 65**, a percentage projected to reach 17 percent of the world's population by 2050. The number of people aged 80 and older is expected to triple by 2050.

The incidence of fragility fractures in the older population is expected to increase. Hip fractures will grow to 6.3 million per year by 2050, and this implies more risk of functional decline, financial and personal costs, and mortality.

Women are generally at greater risk than men because of more significant bone loss due to the menopause and osteoporosis.

## A quality health care model for older patients: the multidisciplinary team

This is a global issue for both primary and secondary prevention, and the **need for a quality healthcare model for older patients**.

An orthopedic surgeon knows that an older patient with a fracture often presents comorbidities - osteoporotic bones, renal failure, malnutrition, cardiopulmonary problems, hypertension, cerebrovascular disease (such as dementia), perfusion and diabetic problems - that only a **multidisciplinary team** can diagnose and treat properly in an integrated way.

**Alex Trompeter**, an orthopedic and trauma consultant surgeon and honorary senior lecturer at St. George's University Hospital, London, stated that *“an orthopedic surgeon alone is not sufficient to manage an older patient with a low-energy fracture. It is well known that about half of our patients with a hip fracture have already had prior fragility fractures.”*

**Roberto Civinini**, orthopedic and trauma surgeon and associate professor at the University of Florence, proved the efficacy of the integrated co-managed model of care for patients with hip fractures, applied at the Careggi University Hospital of Florence: surgery performed within 48 hours at 88.3%; 2% intra-hospital mortality; 14% post-surgery mortality; 8 days is the average length of hospital stay. During the post-surgery phase and after discharge, the patient follows a physiotherapy exercise program, receiving an appropriate



drug treatment and food supplementations of calcium and vitamin D, in presence of osteoporosis. *“Our team includes orthopedic and plastic surgeons, one geriatrician, one anaesthesiologist, one endocrinologist, one cardiologist, one specialist nurse and a physical therapist. They all work together for the patient's good,”* he said.

**Carlo Rostagno**, cardiologist, internal medicine and post-surgery department director, and associate professor at the University of Florence, stated: *“An echocardiography should always be done before intervention to prevent problems in the operating room. It should become a standard of care for management of hip fractures.”*

Regarding the different surgical options, **external fixation is a valid solution for fragility fractures** of the long bones: it is minimally invasive, it can be quickly removed and allows early mobilization.

**Massimo Corain**, director of the hand surgery department at the Borgo Roma University Hospital of Verona, showed how to apply a **monolateral external fixator** and a **modular pin-to-bar fixator to the wrist**. *“Our goal is to restore the natural biological and mechanical properties of the wrist as they were before the trauma,”* he explained.

**Kenneth Koval**, an expert orthopedic and trauma surgeon from the Memorial Hospital at Gulfport, Mississippi, US, was part of the team that four years ago designed **Chimaera Hip Fracture Nailing System™**, the new intramedullary nailing system by Orthofix to treat proximal femur fractures.

"We wanted to reduce post-operative complications. We knew that when using nail, reduction is still important, and one big problem could be the rotational instability," he said.

In 2005 he decided to adopt an alternative method, a new **surgical technique** that was improved in 2013: a minimally invasive procedure, which consists of **six paired pins**, with a **long fine thread that grips on both bone cortices, locked together with an external fixator**. "An effective treatment that allows for full functional recovery is fundamental in order to reduce social impairment and loss of independence," he stated.



At the end of the course, all participants had become acquainted with the most appropriate methods and **latest surgical techniques** to treat fragility fractures – still a potentially life-threatening condition for many frail individuals. The **core message** was that an **older patient needs a skilled interdisciplinary team to be properly diagnosed and treated**. In a co-managed, integrated model of care every 'best decision' is a team decision.

**Thomas Gausepohl**, orthopedics and trauma surgery director at Lahn Dill Kliniken in Wetzlar showed how to apply a **modular external fixator to the elbow**. "The surgical choice with older patients must always consider the bone quality, the individual level of independence and the social context, as well as the surgical risks. Compared to internal fixation, external fixation is a less invasive technique, more indicated with poor quality bone. Functional results are good, with no stiffness and without an increase of complication."

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**Davide Blonna** works in the shoulder and elbow unit at the Mauriziano University Hospital in Turin. He started his presentation on **fragility proximal humeral fracture**: "A surgeon has several options on how to manage a shoulder fracture in an older patient: opt for a conservative approach (for instance a sling immobilization), or choose a more aggressive surgical treatment as internal fixation with plates and nails, sometimes performing an arthroplasty, which may cause complications such as vascular necrosis, malunion, nonunion and infection."

