



# EUROPEJSKA FUNDACJA OSTEOPOROZY I CHORÓB MIĘŚNIOWO–SZKIELETOWYCH

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## FRACTURE LIAISON SERVICE

### PROGRAM ASSUMPTIONS

**The aim of the System is to decrease the number of fractures in Poland. The system will be organized as in the systems operating in other countries - *Fracture Liaison Services (FLS)*.**

**The essence of the system** is the fact that patients who sustained a fracture are the most at risk of an osteoporotic fracture (low-energy fracture). Unfortunately, only 10-15% of patients who underwent low-energy fractures are treated. The implementation of the system in Scotland made the number of patients treated after sustaining a proximal femur fracture as high as 97%, and the number of proximal femur fractures in the country decreased by 7.3%. Currently, the FLS System operates in most European countries, including 37% of hospitals in the UK as well as in the USA and Canada.

The implementation of the system by Kaiser Permanente in 2002 caused a reduction in the number of proximal femur fractures by 40% and savings of \$27 million. The latest reports (MS Cooper 2012) denote an approx. 80% reduction in the risk of secondary fractures. All the reports document a good cost-effectiveness ratio.

**The implementation of the System in Poland** has a potential of increasing the number of patients treated for low-energy fractures by 10% to at least 60%, which will reduce the number of fractures of at least 25% over 3 years. We estimate that if the system would be implemented across the country and would be effectively enforced, it could achieve a 40% reduction in secondary fractures, which would save 286 million PLN per year [details: *Czerwiński E., Amarowicz A. i wsp.: Skuteczne zapobieganie złamaniom osteoporotycznym. Medycyna po Dyplomie; 9 (222) 2014: 33-37*].

The organizer of the system in Poland is the European Foundation of Osteoporosis and Musculoskeletal Diseases (EFOM).

## I. STRATEGY

### a) Stages of implementation – strategy:

#### Preparatory stage:

##### 1. Preparation of the documentation of FLS

- Report "Osteoporosis: a silent epidemic in Poland"
- Detailed fracture prevention program
- Educational materials for patients
- Educational materials for physicians:
  - "Principles of prevention, diagnosis and treatment of bone fractures"
  - "Treatment of patients with low-energy fractures", translation
- Leaflet, Polish Portal of Osteoporosis: [www.osteoporoza.pl](http://www.osteoporoza.pl)
- Questionnaire for patients with low-energy fractures
- Organizational System, The Office of the National Coordinator of the System
- National Database

**Monitoring stage:**

On February 2<sup>nd</sup>, 2015, the first monitoring center was initiated at the District Hospital in Chrzanów, Poland. On March 17<sup>th</sup>, 2015, the first National Course for Coordinators was carried out, after which three new centers were opened (in Starachowice, Lodz and Jaworzno).

**Implementation stages:**1<sup>st</sup> stage of implementation

On 31.June-01.Aug.2015 the 2<sup>nd</sup> National Course for FLS Coordinators took place, followed by the 3rd National Course for Coordinators on 17.Nov.2015 as a result of which further centres were launched. Currently there are 16 active FLS centres in Poland.:

The 2<sup>nd</sup> National Course for FLS Coordinators was held between July 31st and August 1st, 2015 and more centers were opened.

At the moment there are 16 active centers:

- Chrzanów: District Hospital in Chrzanów
- Starachowice: District Health Care
- Jaworzno: Multi-specialistic Hospital
- Warsaw: Central Clinical Hospital of the Ministry of Interior
- Lublin: 4<sup>th</sup> Independent Public Clinical Hospital
- Świecie: New Hospital
- Lodz: Central Clinical Hospital
- Lublin: Regional Specialistic Hospital
- Elblag: Municipal Hospital, Health Care
- Krakow: 5<sup>th</sup> Military Hospital with Polyclinic
- Clinical Hospital of the Jan Mikulicz-Radecki
- Warsaw: Military Medical Institute
- Gorlice: Specialist Hospital Henry Klimontowicza In Specialistic Hospital of the Klimontowicz
- Sosnowiec: 5<sup>th</sup> Regional Specialist Hospital
- Bydgoszcz: 10<sup>th</sup> Military Research Hospital and Polyclinic
- Bydgoszcz: 2<sup>nd</sup> Univeristy Hospital

2<sup>nd</sup> stage of implementation

20 new centers are planned to be inaugated in 2016.

**b) Criteria for center opening**

Mandatory conditions:

- Consent of the ordinator/hospital manager,
- DXA scanner,
- Osteoporosis Treatment Clinic.

Optional conditions:

- Rehabilitation Clinic,
- Assessment of the risk of falling.

**II. SYSTEM STRUCTURE****a) Central Office of the National Coordinator**Tasks

- opening centers,
- coordination,
- supervision,
- data collection,
- supplying centers in materials,
- organizing trainings,
- database organization
- results analysis.

## Headquarters - Members:

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<i>International Osteoporosis Foundation – IOF <a href="http://www.osteofound.org/">www.osteofound.org/</a> FRACTURE LIAISON SERVICE FLS <a href="http://www.capture-the-fracture.org/">www.capture-the-fracture.org/</a></i>			

### b) Local centers – refer to: [www.osteoporoza.pl](http://www.osteoporoza.pl)

### c) National database

- The online system incorporates all patients contacted by the coordinator
- Monitoring of treatment of falls and fractures

## III ORGANIZATIONAL DETAILS - Local center

### a) Equipment – Coordinator Office:

- Institution: office space, basic media,
- EFOM: office equipment, mobile phone, business cards
- information materials,
- „Don't brake” Campaign – leaflets covering falls, fractures, Nordic Walking,
- devices – winter pads.

### b) Coordinator responsibilities:

#### 1. Identification of patients with low-energy fractures

- patients on the ward,  
Daily medical ward rounds or a admissions report
- print-out of patient list sorted by ICD codes, if in doubt → all fractured patients aged >50

#### 2. Implementation of secondary fracture prevention

- reach-out campaigns for patients
- information about osteoporosis, falls and fractures,
- questionnaire (falls, fractures, comorbidities, medications, data to the FRAX),
- handing out educational materials (all materials issued by the EFOM, optionally, with a stamp of a ward)

#### – falls prevention

(instruction, optionally referring to Rehabilitation Clinic)

- Nordic Walking training (everyone),
  - calcium and vitamin D supplementation (ward or the osteoporosis clinic),
- optional:*
- *assessment of fall risk, assessment of sarcopenia (muscular strength, speed).*

#### - organization of pharmacological treatment

- referral for DXA and osteoporosis clinic

### **3. Maintaining the patient in a long-term treatment:**

- assistance in osteoporosis clinic,
- contact with patients:
  - After 6 months - phone questionnaire
  - After 12 months - check-up at the Clinic (DXA)
  - After 18 months, 24 months, 30 months, 36 months (3 years)

### **IV. DOCUMENTATION:**

#### Principle

- the conversations with the patients are recorded in the questionnaire. The patient signs a declaration of consent for personal data processing for a hospital as well as EFOM.
- Coordinator enters the questionnaire entries into the national system network.
- The questionnaire is in the clinic documentation (folded A4)

### **V. AUDIT – PERFORMANCE EVALUATION**

The evaluation of treatment will be carried out based on centrally collected databases (collected by local coordinators, online questionnaires).

#### **Pending evaluation of the effectiveness of the fracture prevention:**

##### **- short-term option, after a year:**

- number of patients in the System
- number of patients who have received instruction on osteoporosis, falls and prevention
- number of patients with low-energy fractures
- number and type of densitometry
- number of patients with osteoporosis and osteopenia
- number of patients which take active anti-osteoporotic drugs
- number of falls
- number of secondary fractures
- proportion of patients continuing the treatment after a year

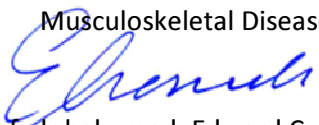
##### **- long-term option, after 3-5 years:**

- number of patients who continue the treatment
- number and type of densitometry in the following years,
- number of falls
- number of secondary fractures
- proportion of patients continuing the treatment after a year

##### **- evidence of the System effectiveness:**

- 10-50% increase in the number of patients who are treated after sustaining a fracture
- 20-40% decrease of the number of secondary fractures
- cost-effectiveness (after 3 and 5 years)

Chairman of the  
European Foundation of Osteoporosis and  
Musculoskeletal Diseases



Prof. dr hab. med. Edward Czerwiński