



ΕΠΙΣΤΗΜΟΝΙΚΗ ΕΚΔΗΛΩΣΗ

Μεταβολικά  
Νοσήματα  
των Οστών  
ΒΙΒΛΙΟΓΡΑΦΙΚΗ  
ΕΝΗΜΕΡΩΣΗ



Ξενοδοχείο «Portaria»

ΠΟΡΤΑΡΙΑ  
ΠΗΛΙΟΥ

Επιστημονικό  
Πρόγραμμα

18  
20  
Μαρτίου

Γραμματεία Επιστημονικής Εκδήλωσης



CONVIN Α.Ε. Κ.Βάρναλη 29, 15233 Χαλάνδρι, Αθήνα  
Τηλ: 210 6833600 | Fax: 210 6847700 | www.convin.gr

Σταθμό για επισκευαστές, ενημέρωσης  
επιστημονικής εκδήλωσης

registrabons\_eemmo@convin.gr  
www.eemmo.gr

Επιστημονικό Πρόγραμμα  
Παρασκευή 18 Μαρτίου 2022

Προεδρείο: **Ι. Διονυσιώτης**

19.00 – 19.30 Δευτερογενής  
πρόληψη καταγμάτων –  
Θεραπευτικό κενό. Τι νεότερο

**Χρ. Κοσμίδης**

**Experience gained from the implementation of the fracture liaison service in Greece**

Polyzois Makras, George C. Babis, Efstathios Chronopoulos, Theofilos Karachalios, Konstantinos Kazakos, Dionysios Paridis, Michael Potoupnis, Anastasios-Nektarios Tzavellas, Christos Valkanis & Christos Kosmidis

- Among the **1350 eligible patients** with major osteoporotic fractures, **only 396** (29.3%; mean age  $78.1 \pm 11.6$  years; female/male ratio: 4.4) agreed to participate, **nearly all of the latter (n = 392) completing the study.**
- At baseline **57.3% of the enrolled patients were under supervision for osteoporosis** by a physician and were previously prescribed antiosteoporotic treatment. However, **86.4% of them had stopped their treatment during the preceding year from the recorded fracture** despite their physician's contrary recommendation.

# ΥΕΚ 1

4 Πανεπιστημιακές Ορθοπεδικές κλινικές: Αλεξανδρούπολης, Λάρισας, Θεσσαλονίκης (Παπαγεωργίου) και Αθήνας (Αγία Όλγα)

1350 Eligible patients

954 decline to participate (70.7%)

396 agree to participate (29.3%)

Στρατολόγηση  
29,3%

Ολοκλή-  
ρωση 99%  
(29%  
όσων  
έδωσαν  
συγκατά-  
θεση)

**12 νέα  
κατάγματα**

**Visit 1  
at 1 month**  
395 Pts (99.7%)

**Visit 2  
at 6 months**  
393 Pts (99.2%)

**Visit 3  
at 12 months**  
392 Pts (99.0%)

Treatment declined  
1 Pt (0.3%)

On treatment  
395 Pts  
(99.7%)

Treatment declined  
3 (0.8%)

On treatment  
393 (99.2%)  
1 Pt Discont.

Treatment declined  
4 (1%)

On treatment  
392 Pts  
(99.0%)  
3 Pts Discont.

New fractures:  
1 (100%)  
Hip

New fractures:  
0 (0%)

New fractures:  
3 (100%)  
1 VF  
2 NVF

New fractures:  
1 (0.3%)  
NVF

New fractures:  
4 (100%)  
1 VF  
3 NVF

New fractures:  
3 (0.8%)  
1 HF  
2 NVF

Table 3 Characteristics of patients who sustained a new fracture during the follow-up period

Patient with fracture	Treatment status	Gender	Age group	Type of fracture
1	Declined	M	<75	Non-vertebral
2	Discontinued	F	<75	Hip
3	Declined	F	<75	Non-vertebral
4	Declined	F	<75	Non-vertebral
5	Declined	F	<75	Vertebral
6	Declined	F	<75	Vertebral
7	Declined	F	>75	Hip
8	Discontinued	F	>75	Non-vertebral
9	Discontinued	F	>75	Non-vertebral
10	Discontinued	F	>75	Non-vertebral
11	Declined	F	>75	Non-vertebral
12	Declined	F	>75	Non-vertebral

*F* female; *M* male

Osteoporosis International (2021) 32:251–259

**The osteoporosis treatment gap in patients at risk of fracture in European primary care: a multi-country cross-sectional observational study**

E. McCloskey, J. Rathi, S. Heijmans, M. Blagden, B. Cortet, E. Czerwinski, P. Hadji, J. Payer, K. Palmer, R. Stad, J. O’Kelly & S. Papapoulos

This cross-sectional, multicenter, multi-country observational study included **153 GP sites across 8 countries**: Belgium, France, Germany, Ireland, Poland, Slovakia, Switzerland, and the UK.

**2077 women, 70 years or older** met one or more definitions for increased risk of fragility fracture

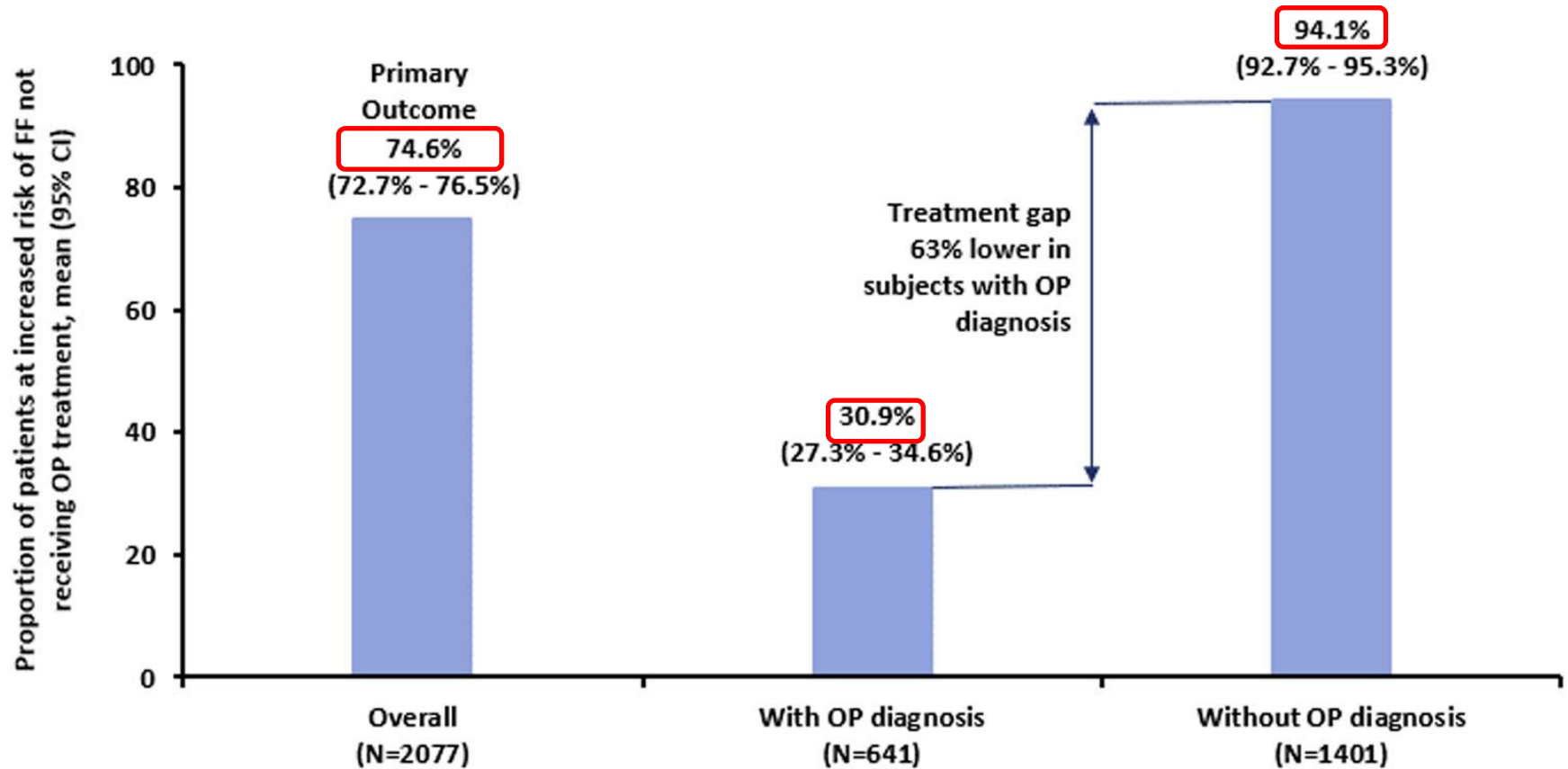
The treatment gap was 74.6%, varying from 53% in Ireland to 91% in Germany.

**Conclusions** There is a large treatment gap in women aged  $\geq 70$  years at increased risk of fragility fracture in routine primary care across Europe. The gap appears to be related to a low rate of osteoporosis diagnosis.

## The osteoporosis treatment gap in patients at risk of fracture in European primary care: a multi-country cross-sectional observational study

E. McCloskey, J. Rathi, S. Heijmans, M. Blagden, B. Cortet, E. Czerwinski, P. Hadji, J. Payer, K. Palmer, R. Stad, J. O’Kelly & S. Papapoulos

Fig. 2 **OP treatment gap** for overall patients and by OP diagnosis



**How has COVID-19 affected the treatment of osteoporosis? An IOF-NOF-ESCEO global survey**

N. R. Fuggle, A. Singer, C. Gill, A. Patel, A. Medeiros, A. S. Mlotek, D. D. Pierroz,  
P. Halbout, N. C. Harvey, J.-Y. Reginster, C. Cooper, & S. L. Greenspan<sup>9</sup>

- Questionnaires were electronically circulated to a sample of members of both learned bodies
- Responses were received from **209 healthcare workers** from **53 countries**, including 28% from Europe, 24% from North America, 19% from the Asia Pacific region, 17% from the Middle East and 12% from Latin America.
- The main three specialties represented included rheumatology (40%), endocrinology (22%) and orthopaedics (15%).
- In terms of the type of patient contact, 33% of respondents conducted telephone consultations and 21% video consultations.
- ... **only 29% able to obtain a DXA scan as recommended.**
- **43% of clinicians reported difficulty in arranging appropriate osteoporosis medications during the COVID-19 crisis.**

**How has COVID-19 affected the treatment of osteoporosis? An IOF-NOF-ESCEO global survey**

N. R. Fuggle, A. Singer, C. Gill, A. Patel, A. Medeiros, A. S. Mlotek, D. D. Pierroz,  
P. Halbout, N. C. Harvey, J.-Y. Reginster, C. Cooper, & S. L. Greenspan<sup>9</sup>

**Conclusions** To conclude through surveying a global sample of osteoporosis healthcare professionals, we have observed :

- **an increase in telemedicine consultations,**
  - **delays in DXA scanning,**
  - **interrupted supply of medications and**
  - **reductions in parenteral medication delivery.**
- 
- **... At worst, this will result in a rise in fracture rates and a huge increase in individual morbidity and societal burden.**

**The impact of fracture liaison services on subsequent fractures and mortality: a systematic literature review and meta-analysis**

N. Li, M. Hiligsmann, A. Boonen, M. M. van Oostwaard, R. T. A. L. de Bot, C. E. Wyers,  
S. P. G. Bours & J. P. van den Bergh

- ...original articles published between January 1, 2010, and April 30, 2020, reporting the effect of FLSs on subsequent fractures and/or mortality
- 16 studies fulfilled the inclusion criteria
- ... the meta-analysis revealed that the FLS care was associated with a **significantly lower probability of subsequent fractures (odds ratio: 0.70, 95% CI: 0.52–0.93, P=0.01)**.
- ... a **significantly lower probability of mortality was identified in the six pre-post FLS comparisons (odds ratio: 0.65, 95% CI: 0.44–0.95, P=0.03)**

Osteoporosis International (2021) 32:1461–1464  
**Fracture liaison services: past, present and future**  
K. Ganda

- FLSs were first instituted and reported on in the early 2000s
- Cost-effectiveness of FLS has been demonstrated consistently across the world, from Australia, the USA, the UK, Europe and Asia
- With the ongoing publication of long-term data, this systematic review and meta-analysis of FLSs is a significant contribution to the FLS literature as it provides further evidence of the **significant and clinically relevant benefits of instituting FLSs worldwide.**

**The treatment gap after major osteoporotic fractures in Denmark 2005-2014: a combined analysis including both prescription-based and hospital-administered anti-osteoporosis medications**

M. K. Skjødt, M. T. Ernst, S. Khalid, C. Libanati, C. Cooper, A. Delmestri, K. H. Rubin, M. K. Javaid, D. Martinez-Laguna, E. Toth, D. Prieto-Alhambra, & B. Abrahamsen

- In this retrospective, registry-based study, we included men and women aged **50 years or older** and living in Denmark, who **sustained at least one MOF between 2005 and 2014**.
- The treatment gap among MOF patients **decreased from 85% in 2005 to 79% in 2014**.
- **The gap was smaller among hip and vertebral fracture patients** as compared to humerus and forearm fracture patients, and it was **smaller in women than in men**.
- **Conclusion** A significant treatment gap among patients sustaining a major osteoporotic fracture was present throughout our analysis, and **including hospital-administered AOM did not significantly improve the treatment gap assessment. Improved secondary fracture prevention is urgently needed.**

**Exploring the treatment gap among patients with osteoporosis-related fractures in France**

Patrice Fardellone, Lianne Barnieh, Nadia Quignot, Gaelle Gusto, Artak Khachatryan, Doreen A. Kahangire, Gavin Worth, James O'Kelly & Gaelle Desamericq

- A retrospective cohort study, using the national French Health Insurance claims database. **Males and females 50 years and over**, with a hospital discharge **diagnosis of osteoporosis with fracture** or a relevant fragility fracture between 2011 and 2014, were included and followed until death or the end of 2016, whichever came first. The primary outcome was the **proportion of patients receiving anti-osteoporosis treatments prior to and post-index fracture**.
- A total of 574,133 patients (138,567 males, 435,566 females) had a qualifying index fracture. The proportion of patients receiving any anti-osteoporosis treatment **increased** pre-index fracture to post-index fracture from **2.2 to 5.6% among males, and from 11.8 to 18.2% among females**.
- **Conclusion: Anti-osteoporosis treatment following an index fracture in France remains low.**

**Osteoporosis in Europe: a compendium of country-specific reports**

Carl Willers, Nicholas Norton, Nicholas C Harvey, Trolle Jacobson, Helena Johansson, Mattias Lorentzon, Eugene V McCloskey, Fredrik Borgström, John A Kanis, & the SCOPE review panel of the IOF

- This report describes epidemiology, burden, and treatment of osteoporosis in each of the 27 countries of the European Union plus Switzerland and the UK (EU 27+2)
- Fifteen of the 16 score card metrics on healthcare provision were used in the two surveys. Scores had improved or markedly improved in 15 countries, remained constant in 8 countries and worsened in 3 countries.
- **The average treatment gap increased from 55% in 2010 to 71% in 2019.** Overall, 10.6 million women who were eligible for treatment were untreated in 2010. In 2019, this number had risen to 14.0 million.
- **Conclusions** In spite of the high cost of osteoporosis, a substantial treatment gap and projected increase of the economic burden driven by aging populations, **the use of pharmacological prevention of osteoporosis has decreased in recent years**, suggesting that a change in healthcare policy concerning the disease is warranted.

**Osteoporosis in Europe: a compendium of country-specific reports**

Carl Willers, Nicholas Norton, Nicholas C Harvey, Trolle Jacobson, Helena Johansson, Mattias Lorentzon, Eugene V McCloskey, Fredrik Borgström, John A Kanis, & the SCOPE review panel of the IOF

**Epidemiology and economic burden of osteoporosis in Greece**

P Makras · GP Lyritis · S Rizou · T Drakopoulou · G Trovas · C Willers · N Norton · N C Harvey · T Jacobson · H Johansson · M Lorentzon · E V McCloskey · F Borgström · J A Kanis

**Table 1** Key measures of burden of disease for Greece

Category	Measure	Estimate	Rank
Burden of disease	Direct cost of incident fracture (€m)	694.70	
	Long-term disability cost (€m)	203.51	
	Intervention cost (€m)	80.46	
	Total cost (€m)	978.68	
	QALYs lost (€m)	1 518	
	Cost per capita (€)	91.23	13
	Proportion of healthcare spending	6.2%	1
	Prevalence of osteoporosis	5.7%	7

**Osteoporosis in Europe: a compendium of country-specific reports**

Carl Willers, Nicholas Norton, Nicholas C Harvey, Trolle Jacobson, Helena Johansson, Mattias Lorentzon, Eugene V McCloskey, Fredrik Borgström, John A Kanis, & the SCOPE review panel of the IOF

**Epidemiology and economic burden of osteoporosis in Greece**

PMakras · GP Lyritis · S Rizou · T Drakopoulou · G Trovas · CWillers · N Norton · NC Harvey · T Jacobson · H Johansson · M Lorentzon · EV McCloskey · F Borgström · JA Kanis

**Table 2** Policy framework for osteoporosis in Greece

Category	Measure	Estimate
Policy frame- work	National fracture data availability	No
	OP recognized as a specialty	No
	OP primarily managed in primary care	No
	Other specialties involved	Orthopaedics, Endocrinology, Rheumatology
	Advocacy areas covered by patient organisation	Policy, capacity, research and development

**Osteoporosis in Europe: a compendium of country-specific reports**

Carl Willers, Nicholas Norton, Nicholas C Harvey, Trolle Jacobson, Helena Johansson, Mattias Lorentzon, Eugene V McCloskey, Fredrik Borgström, John A Kanis, & the SCOPE review panel of the IOF

**Epidemiology and economic burden of osteoporosis in Greece**

PMakras · GP Lyritis · S Rizou · T Drakopoulou · G Trovas · CWillers · N Norton · NC Harvey · T Jacobson · H Johansson · M Lorentzon · EV McCloskey · F Borgström · JA Kanis

**Table 3 Service provision for osteoporosis in Greece**

Category	Measure	Estimate	Rank
Service provision	Reimbursement of OP medications	75%	
	DXA units/million inhabitants	51.4	1
	DXA cost (€)	55	11
	FRAX risk assessment model available	Yes	
	Fracture liaison service density	1-10%	

**Osteoporosis in Europe: a compendium of country-specific reports**

Carl Willers, Nicholas Norton, Nicholas C Harvey, Trolle Jacobson, Helena Johansson, Mattias Lorentzon, Eugene V McCloskey, Fredrik Borgström, John A Kanis, & the SCOPE review panel of the IOF

**Epidemiology and economic burden of osteoporosis in Greece**

PMakras · GP Lyritis · S Rizou · T Drakopoulou · G Trovas · CWillers · N Norton · NC Harvey · T Jacobson · H Johansson · M Lorentzon · EV McCloskey · F Borgström · JA Kanis

**Table 4** Service uptake for osteoporosis in Greece

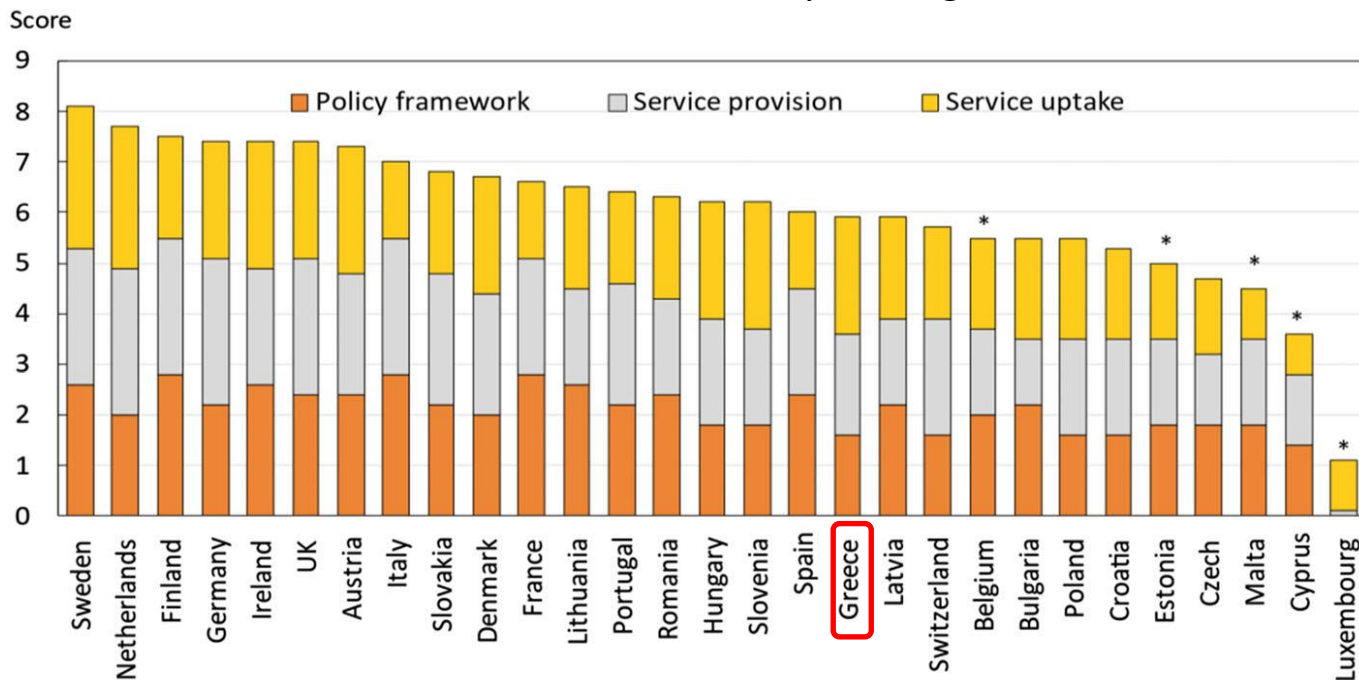
Category	Measure	Estimate	Rank
Service uptake	Number of FRAX sessions/million people/year	4566	4
	Treatment gap for women eligible for treatment (%)	43	3
	Proportion surgically managed hip fractures	>90%	

## Osteoporosis in Europe: a compendium of country-specific reports

Carl Willers, Nicholas Norton, Nicholas C Harvey, Trolle Jacobson, Helena Johansson, Mattias Lorentzon, Eugene V McCloskey, Fredrik Borgström, John A Kanis, & the SCOPE review panel of the IOF

### Epidemiology and economic burden of osteoporosis in Greece

PMakras · GP Lyritis · S Rizou · T Drakopoulou · G Trovas · CWillers · N Norton · NC Harvey · T Jacobson · H Johansson · M Lorentzon · EV McCloskey · F Borgström · JA Kanis



Greece scores resulted in a 9th place regarding Burden of disease. The combined healthcare provision scorecard resulted in a 18th place for Greece.

Thus, Greece presents as **one of the eight high burden low-provision countries** among the EU27+2.

## ΥΕΚ2 : ΦΕΒΡΟΥΑΡΙΟΣ 2019 – ΙΑΝΟΥΑΡΙΟΣ 2022

### ΟΡΓΑΝΩΣΗ: ΕΕΜΜΟ - ΟΙΚΟΝΟΜΙΚΗ ΥΠΟΣΤΗΡΙΞΗ: AMGEN HELLAS

- ΟΡΘΟΠΑΙΔΙΚΗ ΚΛΙΝΙΚΗ Γ. Π.Ν.Π. Ρίο – Πάτρα  
Υπεύθυνος : Καθηγητής Η. Παναγιωτόπουλος ΕΝΑΡΞΗ : 2/2/2019 Υπότροφη κα ΕΙΡΗΝΗ ΤΑΤΑΝΗ
- ΟΡΘΟΠΑΙΔΙΚΗ ΚΛΙΝΙΚΗ ΑΣΚΛΗΠΙΕΙΟΥ ΒΟΥΛΑΣ , Αθήνα  
Υπεύθυνος : Δ/ντης Αλ. Παστρούδης ΕΝΑΡΞΗ : 15/4/2019 Υπότροφος κος ΣΤΑΜΑΤΙΟΣ – ΘΕΟΔΩΡΟΣ ΧΑΤΖΟΠΟΥΛΟΣ
- Γ' ΟΡΘΟΠΑΙΔΙΚΗ ΚΛΙΝΙΚΗ Γ.Π.Ν. «ΠΑΠΑΓΕΩΡΓΙΟΥ», Θεσσαλονίκη  
Υπεύθυνος : Μ. Ποτούπνης – Αν. Καθηγητής Ορθοπαιδικής ΑΠΘ ΕΝΑΡΞΗ : 18/4/2019 Υπότροφος κος ΝΗΦΩΝ ΓΚΕΚΑΣ
- ΟΡΘΟΠΑΙΔΙΚΗ ΚΛΙΝΙΚΗ Γ.Ν.Η. «ΒΕΝΙΖΕΛΕΙΟ», Ηράκλειο Κρήτης  
Υπεύθυνος : Εμμ. Ξυλούρης – Δ/ντής Κλινικής ΕΝΑΡΞΗ : 8/1/2020 Υπότροφος κος ΚΑΨΕΤΑΚΗΣ ΠΕΤΡΟΣ
- ΟΡΘΟΠΑΙΔΙΚΗ ΚΛΙΝΙΚΗ Π.Γ.Ν.Ι., Ιωάννινα  
Υπεύθυνος : Αιμ. Πάκος – Επικ. Καθηγητής Ορθοπαιδικής Π.Ι. ΕΝΑΡΞΗ : 1/2/2020 Υπότροφος κος ΤΖΕΛΛΙΟΣ ΙΩΑΝΝΗΣ

### ΤΕΛΙΚΟ ΣΤΑΤΙΣΤΙΚΟ ΥΕΚ2

	Όλα τα κατάγματα	Εισαχθέντα στη μελέτη	Όλα τα ισχία	Εισαχθέντα ισχία στη μελέτη
Πάτρα (2-2-19 έως 1-2-20)	390	139	141	49
Βούλα (15-4-19 έως 14-4-20)	1300	213	639	73
Θεσσαλονίκη (18-4-19 έως 17-4-20)	276	105	194	53
Ηράκλειο (8-1-20 έως 7-1-21)	485	142	239	64
Ιωάννινα (1-2-20 έως 31-1-21)	262	93	134	36
ΣΥΝΟΛΑ	2713	692 (25,5%)	1347	275



Ευχαριστώ πολύ