



## Μακροχρόνια θεραπεία με μικρές δόσεις κορτικοστεροειδών στις χρόνιες φλεγμονώδεις παθήσεις:

pros & cons –

*70 χρόνια χρήσης και ακόμη ξέρουμε τόσο λίγα*

ΣΠΥΡΟΣ Ν ΝΙΚΑΣ

ΡΕΥΜΑΤΟΛΟΓΟΣ

ΙΩΑΝΝΙΝΑ

# 70 ΧΡΟΝΙΑ...ΚΟΡΤΙΖΟΝΗ !



Οι «θαυματουργές» δράσεις των γλυκοκορτικοειδών (GC) στον άνθρωπο περιεγράφηκαν για 1<sup>η</sup> φορά από Philip S. Hench και συν. το **1949**

Σε μια εβδομάδα : η δυσκαμψία έφυγε πλήρως  
σημαντική μείωση πόνου – οίδημα

Χορηγήθηκαν ημερήσιες  
**IM** injections 100 mg **17-**  
hydroxy-11-  
**dehydrocorticosterone**  
(compound E)

Ο 1<sup>ος</sup> ασθενής : 29 ετών  
γυναίκα , κληνής λόγω  
σοβαρής,  
παραμορφωτικής **PA**  
διάρκειας 4 ετών

PHILIP S. HENCH

The reversibility of certain rheumatic and  
non-rheumatic conditions by the use of cortisone or  
of the pituitary adrenocorticotrophic hormone

*Nobel Lecture, December 11, 1950.*

It may be appropriate to discuss in this Nobel Lecture three general aspects of cortisone and pituitary adrenocorticotrophic hormone (ACTH): (1) the development of the theory which eventually led to the use of cortisone and ACTH in rheumatic and certain other conditions; this I shall do in some detail, giving certain data not published heretofore; (2) the present status of cortisone and ACTH in general medicine; this topic I shall discuss summarily in view of the several current reports thereon; and (3) some major requirements for the orderly development of cortisone and ACTH as therapeutic agents; this aspect will be touched upon briefly.

*Development of the Theory which Led to the Use of Cortisone and ACTH  
in Rheumatic Diseases*



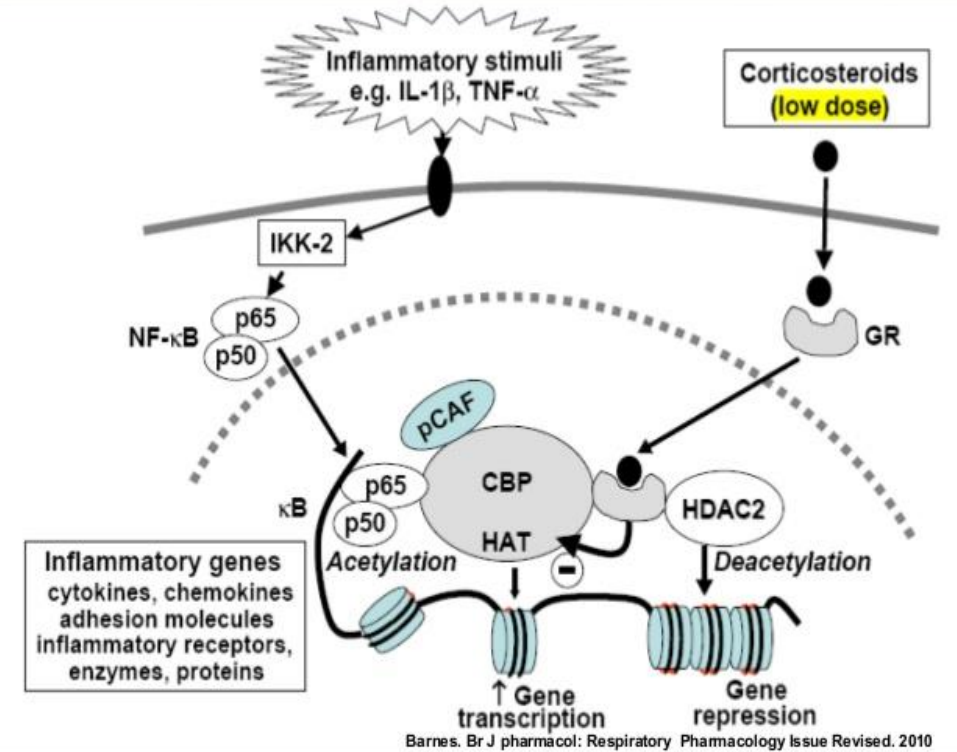
# ΜΗΧΑΝΙΣΜΟΣ ΔΡΑΣΗΣ ΓΚ

μέσω διάχυσης, περνούν ελεύθερα την κυτταρική μεμβράνη -> κυτταρόπλασμα -> ενώνονται με τον υποδοχέα (glucocorticoid receptor)

Το σύμπλεγμα glucocorticoid/receptor -> μετακινείται στον πυρήνα

transcriptional **repression**=> to anti-inflammatory effects  
Transcriptional **activation** => to many of the recognised side-effects

## GC suppression of activated inflammatory gene expression

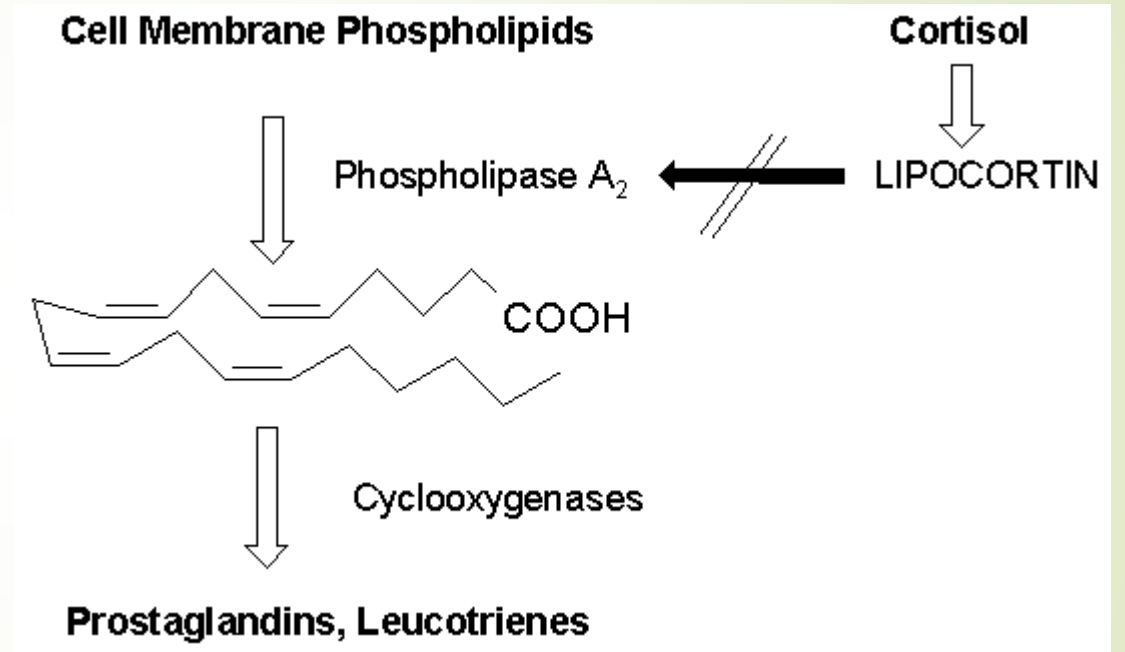


# ΜΗΧΑΝΙΣΜΟΣ ΔΡΑΣΗΣ ΓΚ

Μια από τις κύριες πρωτεΐνες που τα ΓΚ **αυξάνουν** την παραγωγή της είναι η **lipocortin**



Η οποία με τη σειρά της αναστέλλει την phospholipase A2



**Table 1** 2013 Update of the EULAR recommendations (the table of 2010 original publication)

*Overarching principles*

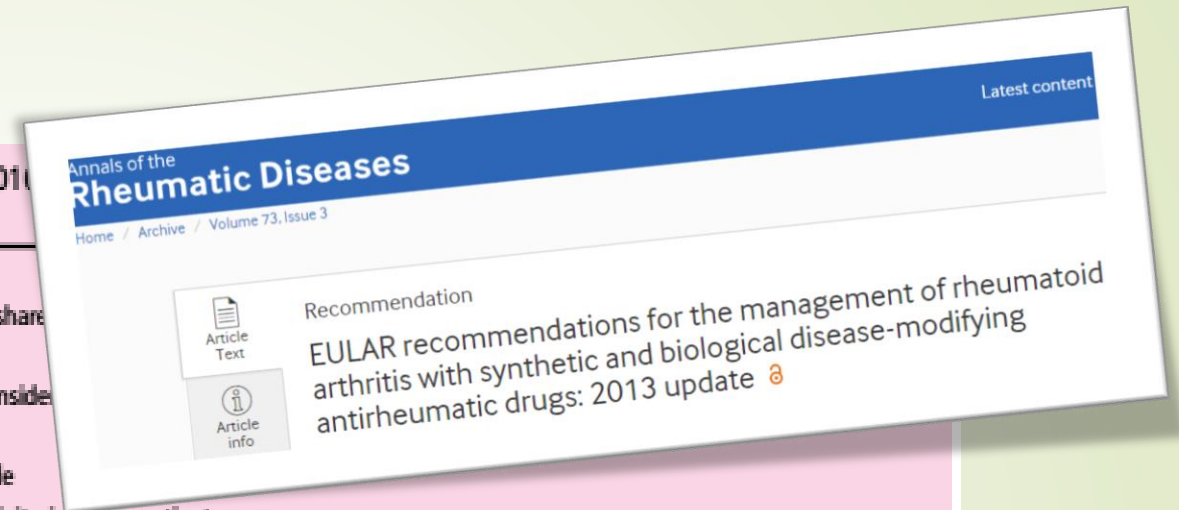
- A. Treatment of RA patients should aim at the best care and must be based on a shared decision-making process
- B. Rheumatologists are the specialists who should primarily care for RA patients
- C. RA incurs high individual, societal and medical costs, all of which should be considered

*Recommendations*

- 1. Therapy with DMARDs should be started as soon as the diagnosis of RA is made
- 2. Treatment should be aimed at reaching a target of remission or low disease activity in every patient
- 3. Monitoring should be frequent in active disease (every 1–3 months); if there is no improvement by at most 3 months after the start of treatment or the target has not been reached by 6 months, therapy should be adjusted
- 4. MTX should be part of the first treatment strategy in patients with active RA

7. Low-dose glucocorticoids should be considered as part of the initial treatment strategy (in combination with one or more csDMARDs) for up to 6 months, but should be tapered as rapidly as clinically feasible

- 9. In patients responding insufficiently to MTX and/or other csDMARD strategies, with or without glucocorticoids, bDMARDs (TNF inhibitors\*, abatacept or tocilizumab, and, under certain circumstances, rituximab†) should be commenced with MTX
- 10. If a first bDMARD has failed, patients should be treated with another bDMARD; if a first TNF inhibitor therapy has failed, patients may receive another TNF inhibitor\* or a biological agent with another mode of action
- 11. Tofacitinib may be considered after biological treatment has failed
- 12. If a patient is in persistent remission after having tapered glucocorticoids, one can consider tapering‡ bDMARDs§, especially if this treatment is combined with a csDMARD
- 13. In cases of sustained long-term remission, cautious reduction of the csDMARD dose could be considered, as a shared decision between patient and physician
- 14. When therapy needs to be adjusted, factors apart from disease activity, such as progression of structural damage, comorbidities and safety issues, should be taken into account



Recommendation

## EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease-modifying antirheumatic drugs: 2016 update

Josef S Smolen,<sup>1,2</sup> Robert Landewé,<sup>3,4</sup> Johannes Bijlsma,<sup>5</sup> Gerd Burmester,<sup>6</sup> Katerina Chatzidionysiou,<sup>7</sup> Maxime Dougados,<sup>8</sup> Jackie Nam,<sup>9</sup> Sofia Ramiro,<sup>10</sup> Marieke Voshaar,<sup>11</sup> Ronald van Vollenhoven,<sup>3,4</sup> Daniel Aletaha,<sup>1</sup> Martin Aringer,<sup>12</sup> Chris D Buckley,<sup>13</sup> Frank Buttgereit,<sup>6</sup> Vivian Bykerk,<sup>15,16</sup> Yvonne van Eijk-Hustings,<sup>20</sup> Kenneth Saay,<sup>45,46</sup> Maarten de Wit,<sup>17</sup> Desirée

6. Short-term glucocorticoids should be considered when initiating or changing csDMARDs, in different dose regimens and routes of administration, but should be tapered as rapidly as clinically feasible

Table 2 The 2016 EULAR updated recommendations

*Overarching principles:*

- A Treatment of patients with RA should aim at the best care and must be based on a shared decision between the patient and the rheumatologist
- B Treatment decisions are based on disease activity and other patient factors, such as progression of structural damage, comorbidities and safety issues
- C Rheumatologists are the specialists who should primarily care for patients with RA
- D RA incurs high individual, medical and societal costs, all of which should be considered in its management by the treating rheumatologist

*Recommendations:*

- 1. Therapy with DMARDs should be started as soon as the diagnosis of RA is made
- 2. Treatment should be aimed at reaching a target of sustained remission or low disease activity in every patient
- 3. Monitoring should be frequent in active disease (every 1–3 months); if there is no improvement by at most 3 months after the start of treatment or the target has not been reached by 6 months, therapy should be adjusted
- 4. MTX should be part of the first treatment strategy

poor prognostic factors are present, addition of a bDMARD<sup>1,2</sup> or a tsDMARD<sup>3</sup> should be considered; current practice would be to start a bDMARD<sup>4</sup>

- 9. bDMARDs<sup>1,2</sup> and tsDMARDs<sup>3</sup> should be combined with a csDMARD; in patients who cannot use csDMARDs as comedication, IL-6 pathway inhibitors and tsDMARDs may have some advantages compared with other bDMARDs
- 10. If a bDMARD<sup>1</sup> or tsDMARD<sup>3</sup> has failed, treatment with another bDMARD or a tsDMARD should be considered; if one TNF-inhibitor therapy has failed, patients may receive another TNF-inhibitor or an agent with another mode of action
- 11. If a patient is in persistent remission after having tapered glucocorticoids, one can consider tapering bDMARDs, especially if this treatment is combined with a csDMARD
- 12. If a patient is in persistent remission, tapering the csDMARD could be considered



# ΧΩΡΙΣ ΤΟ ΟΡΙΟ ΤΩΝ 6 ΜΗΝΩΝ (πρώιμη ΡΑ)

- ▶ Roubille C, Rincheval N, Dougados M, et al. Sevenyear tolerability profile of glucocorticoids use in early rheumatoid arthritis: data from the ESPOIR cohort. Ann Rheum Dis 2017
- ▶ Albrecht K, Callhoff J, Edelmann E, et al. [Clinical remission in rheumatoid arthritis. data from the early arthritis cohort study CAPEA]. Z Rheumatol 2016;75:90–6



# ΟΛΕΣ ΟΙ ΣΥΣΤΑΣΕΙΣ συμφωνούν...



The screenshot shows the journal page for 'Arthritis Care & Research', published by the American College of Rheumatology. The article title is 'The "official view" on glucocorticoids in rheumatoid arthritis. A systematic review of international guidelines and consensus statements'. The authors listed are Yannick Palmowski, Thomas Buttgereit MD, Christian Dejaco MD, MBA, PhD, Johannes W. Bijlsma MD, PhD, Eric L. Matteson MD, MPH, Marieke Voshaar MSc, Maarten Boers MD, MSc, PhD, and Frank Buttgereit MD. The article was accepted for publication on December 28, 2016. To the right of the article information, there is a section for 'Accepted Articles' with a thumbnail image of the journal cover and a brief explanation of the 'Accepted, unedited articles published online and citable' status.

- ▶ GC, ειδικά σε **μικρές** δόσεις και για **βραχύ** χρονικό διάστημα => κατάλληλη θεραπεία RA
- ▶ many recommendations remain vague as reliable and detailed **evidence is scarce**

Οι περισσότερες μελέτες είναι αναδρομικές / παρατήρησης  
selection bias

It is the best of treatments, it is the worst of treatments:  
The continuing love hate relationship with glucocorticoids in RA

Corresponding Author: Tina D. Mahajan, M.D.

GCC are **old** drugs,  
and therefore no company would consider the multi-million dollars  
necessary to fund this much needed research

# Μακροχρόνια ασφάλεια



65 ΑΕ (7 θάνατοι, 14 CVD, 19 σοβαρές λοιμώξεις, 25 κατάγματα)

- **44 Vs 21** σε ασθενείς με και χωρίς GC ( $p=0.520$ )
- Λοιμώξεις ήταν πιο συχνές σε ασθενείς με GC, όχι όμως σημαντικά ( $p=0.09$ )

On weighted Cox proportional-hazards analysis, with use of propensity score and inverse-probability-of-treatment weighting, and including age, gender, history of hypertension and GC treatment

**ΔΙΑΦΟΡΕΣ ΣΤΙΣ ΕΚΒΑΣΕΙΣ ΔΕΝ ΦΑΝΗΚΑΝ**

**no significant difference in major safety events between early RA patients with and without low-dose glucocorticoid treatment**



# CS & λοιμώξεις

Ο αριθμός των λοιμώξεων  
ήταν **παρόμοιος**  
μεταξύ των 2 ομάδων και στις 3 μελέτες

Wassenberg S, Rau R, Steinfeld P, Zeidler H, for the **Low-Dose** Prednisolone Therapy Study Group. Very low-dose prednisolone in early rheumatoid arthritis retards radiographic progression over two years. *Arthritis Rheum* 2005;52:3371-80.

Svensson B, Boonen A, Albertsson K, van der Heijde D, Keller C, Hafström I, for the BARFOT Study Group. **Low-dose** prednisolone in addition to the initial disease-modifying antirheumatic drug in patients with early active rheumatoid arthritis reduces joint destruction and increases the remission rate. A two-year randomized trial. *Arthritis Rheum* 2005;52:3360-70

van Everdingen AA, Jacobs JWJ, van Reesema DRS, Bijlsma JWJ **Low-dose** prednisone therapy for patients with early active rheumatoid arthritis: clinical efficacy, disease-modifying properties, and side effects: a randomized, double-blind, placebo-controlled clinical trial. *Ann Intern Med* 2002;136:1-12



# Συχνές ΑΕ στην καθημέρα κλινική πράξη

- Εκχυμώσεις και λέπτυνση δέρματος
- Ήπια αύξηση ΑΠ
- ΣΔ
- Καταρράκτης

*Long-term prednisone in doses of less than 5 mg/day for treatment of rheumatoid arthritis: personal experience over 25 years. Pincus T1, Castrejón I, Sokka T. Clin Exp Rheumatol. 2011 Sep-Oct;29(5 Suppl 68):S130-8.*

# Συχνές ΑΕ στην καθημέρα κλινική πράξη

Αύξηση ΣΒ ήταν πιο σύνηθες ΑΕ εύρημα (70%)

- prednisolone : 5 kg Vs 0.3 kg placebo group (1)
- Εκχυμώσεις δερμ (55 %), διαταραχές ύπνου (45 %) διαταραχές διάθεσης ( 45 %) (2)

Wassenberg S, Rau R, Steinfeld P, Zeidler H, for the Low-Dose Prednisolone Therapy Study Group. **Very low-dose** prednisolone in early rheumatoid arthritis retards radiographic progression over two years. *Arthritis Rheum* 2005;52:3371-80  
Curtis JR, Westfall AO, Allison J et al (2006) Population-based assessment of adverse events associated with **long-term** glucocorticoid use. *Arthritis Rheum* 55(3):420-426.



# Πιο ενοχλητικές (ασθενείς) ΑΕ στην καθημέρα κλινική πράξη

- Διαταραχές ύπνου
- Αύξηση ΣΒ
- Διαταραχές συναισθήματος
- Λέπτυνση δέρματος

Arthritis Care & Research

*It is the best of treatments, it is the worst of treatments: The continuing love hate relationship with glucocorticoids in RA Tina D. Mahajan M.D., James R. O'Dell . 28 December 2016*

# Monitoring adverse events of low-dose glucocorticoid therapy: EULAR recommendations for clinical trials and daily practice

M C van der Goes,<sup>1</sup> J W G Jacobs,<sup>1</sup> M Boers,<sup>2</sup> T Andrews,<sup>3</sup> M A M Blom-Bakkers,<sup>1</sup> F Buttgereit,<sup>4</sup> N Caeyers,<sup>5</sup> M Cutolo,<sup>6</sup> J A P Da Silva,<sup>7</sup> L Guillevin,<sup>8</sup> J R Kirwan,<sup>3</sup> J Rovensky,<sup>9</sup> G Severijns,<sup>10</sup> S Webber,<sup>3</sup> R Westhovens,<sup>10</sup> J W J Bijlsma<sup>1</sup>

Standard care monitoring needs

**NOT** be extended for

patients on **low-dose GC therapy**,

except for osteoporosis (follow national guidelines)



# Ο κίνδυνος για πρόκληση «βλάβης»

- ▶ Χαμηλός για τους περισσότερους ασθενείς με μακροχρόνια χορήγηση σε δόση  $\leq 5$  mg prednisone / day
  - ▶ Εξαίρεση : CVD
- ▶ Για δόσεις  $>10$  mg/day ο κίνδυνος είναι αυξημένος
- ▶ Για δόσεις  $>5$  και  $\leq 10$  mg/day, ειδικά χαρακτηριστικά του ασθενούς -> καθορίζουν τον κίνδυνο

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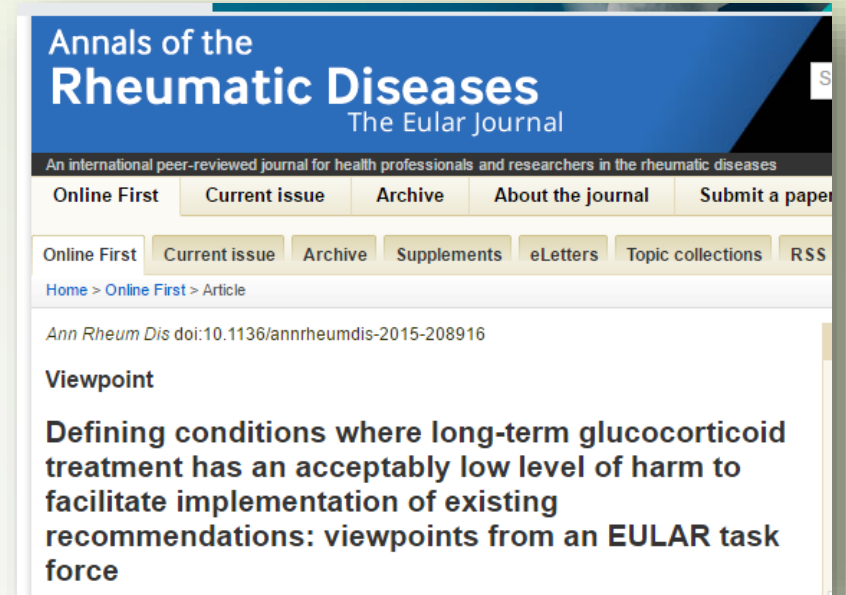
Ann Rheum Dis doi:10.1136/annrheumdis-2015-208916

**Viewpoint**

**Defining conditions where long-term glucocorticoid treatment has an acceptably low level of harm to facilitate implementation of existing recommendations: viewpoints from an EULAR task force**

# 4 πιο ανησυχητικές ΑΕ των ΓΚ (για όλες τις δόσεις)

- Οστεοπόρωση
- Υπεργλυκαιμία
- CVD
- Λοιμώξεις



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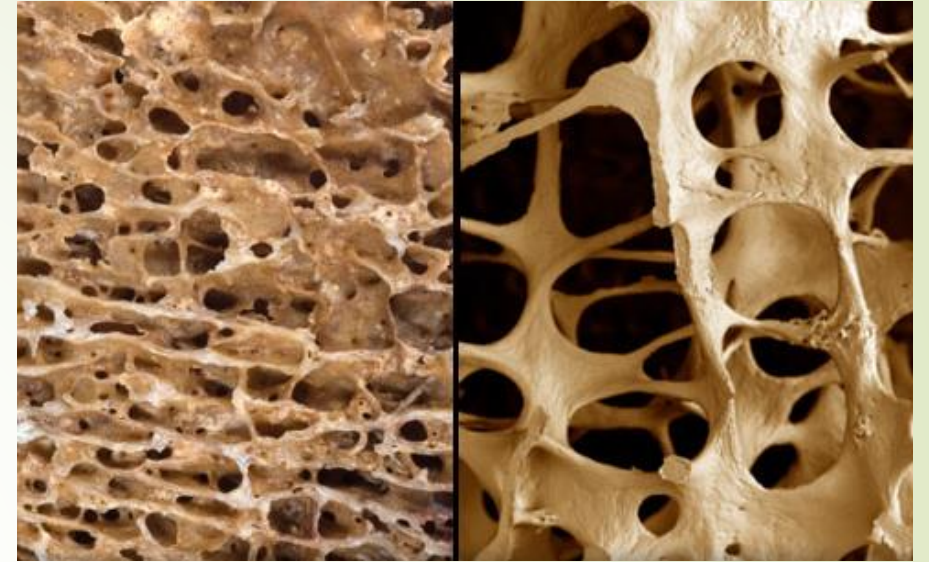
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*Ann Rheum Dis* doi:10.1136/annrheumdis-2015-208916

**Viewpoint**

**Defining conditions where long-term glucocorticoid treatment has an acceptably low level of harm to facilitate implementation of existing recommendations: viewpoints from an EULAR task force**

## 4 πιο ανησυχητικές ΑΕ των ΓΚ οστεοπόρωση



- ▶ Ταχεία απώλεια BMD – ↑καταγματικός κίνδυνος
- ▶ Παράγοντες κινδύνου : ηλικία, χαμηλή BMI , Ηx κατάγματος ή ΟΠ , γυναικείο Φ

Fractures are the most **common serious** adverse event

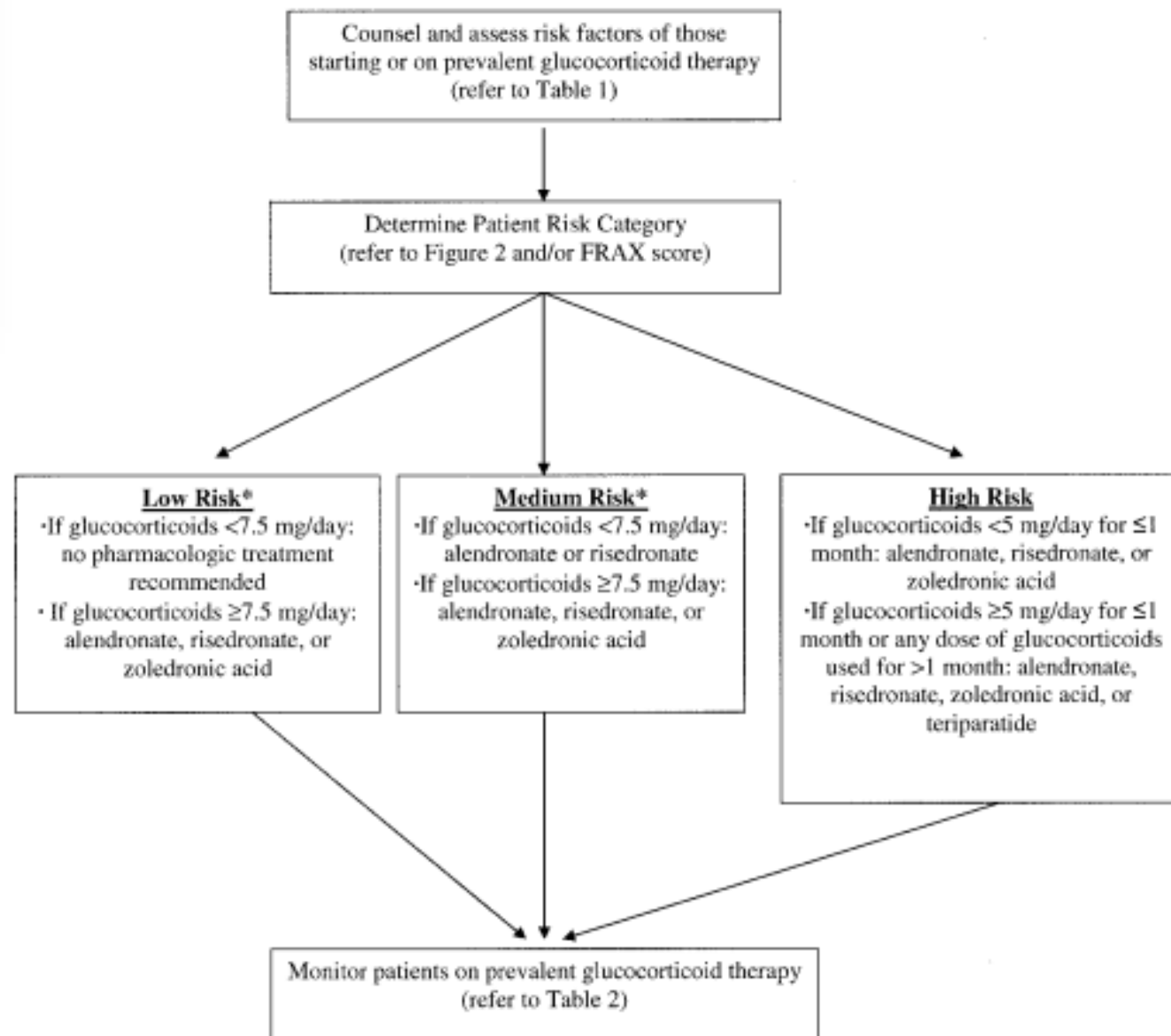
*It is the best of treatments, it is the worst of treatments: The continuing love hate relationship with glucocorticoids in RA  
Tina D. Mahajan M.D., James R. O'Dell . 28 December 2016*

## American College of Rheumatology 2010 Recommendations for the Prevention and Treatment of Glucocorticoid-Induced Osteoporosis

JENNIFER M. GROSSMAN,<sup>1</sup> REBECCA GORDON,<sup>2</sup> VEENA K. RANGANATH,<sup>1</sup> CHAD DEAL,<sup>3</sup>  
 LIRON CAPLAN,<sup>4</sup> WEILING CHEN,<sup>1</sup> JEFFREY R. CURTIS,<sup>5</sup> DANIEL E. FURST,<sup>1</sup> MAUREEN McMAHON,<sup>1</sup>  
 NIVEDITA M. PATKAR,<sup>5</sup> ELIZABETH VOLKMANN,<sup>1</sup> AND KENNETH G. SAAG<sup>5</sup>

- Low risk: FRAX <10% for 10-year major osteoporotic fracture
- Medium risk: FRAX 10--20% for 10-year major osteoporotic fracture
- High risk: FRAX >20% for 10-year major osteoporotic fracture

| Recommendations                                   | Level of evidence |
|---|-------------------|
| Low-risk patient                                  |                   |
| Alendronate for $\geq 7.5$ mg/day prednisone      | A                 |
| OR  |                   |
| Risedronate for $\geq 7.5$ mg/day prednisone      | A                 |
| OR  |                   |
| Zoledronic acid for $\geq 7.5$ mg/day prednisone* | B                 |
| Medium-risk patient                               |                   |
| Alendronate for any dose of glucocorticoids       | A                 |
| OR  |                   |
| Risedronate for any dose of glucocorticoids       | A                 |
| OR  |                   |
| Zoledronic acid for $\geq 7.5$ mg/day prednisone* | B                 |
| High-risk patient†                                |                   |
| Alendronate                                       | A                 |
| OR  |                   |
| Risedronate                                       | A                 |
| OR  |                   |
| Zoledronic acid*                                  | B                 |
| OR  |                   |
| Teriparatide‡                                     | B                 |



Approach to postmenopausal women and men age >50 years initiating or receiving glucocorticoid

eular

Text  
Rhe  
D

impaired by  
calcium or calcium  
though the evidence  
is definitely not  
patients starting

in D metabolites  
rving BMD than no  
Nowadays, it is  
n chronic  
n intake (eg, >1000  
well within the  
l/l). Weight  
underlying  
in muscle mass,  
by glucocorticoid

www.axon

BMJ Group

in the course of glucocorticoid therapy) not really  
relevant.

UK guidelines recommend a pharmacological  
intervention at any glucocorticoid dose in all men and  
women over the age of 65 years, in individuals with a  
history of previous fractures, and in younger people with  
BMD T scores of  $\leq -1.5$ , who are committed to at least 3  
months of oral glucocorticoid therapy.

American College of Rheumatology (ACR) guidelines  
recommend that treatment with bisphosphonate should be  
started in patients exposed to glucocorticoid for longer  
than 3 months (5 mg prednisone equivalent, or higher,  
daily), if their vertebral T score is  $\leq -1.0$ .

Country specific restrictions for drug reimbursements  
often include a minimum daily dose and treatment  
duration of glucocorticoid.

### 5.3 Pharmacological intervention

Fracture reduction has not been a primary end point in  
any of the intervention studies in GIOP. Thus, evidence for

primarily  
formation, which  
approach, rather than of a  
and its high cost, teriparat  
therapeutic strategy for G

## 6 Osteoporosis i

### 6.1 General mana

Male osteoporosis rema  
because of the common  
disease of women, and  
cause in 50% of men wi  
is also clearly undertre  
50 years will experienc  
at some point, an even  
and mortality rates tha  
Ensuring adequate  
appropriate physical a  
known to be associate  
(eg, alcohol, tobacco).

# 4 πιο ανησυχητικές ΑΕ των ΓΚ οστεοπόρωση



α) συνιστάται η χρήση **FRAX** για άνδρες και γυναίκες ηλικίας > 40 ετών (για δόσεις 2.5-7.5 mg/day η εκτίμηση κρίνεται ικανοποιητική)

β) για άτομα < 40 ετών, ασθενείς με Z score < -3 θεωρούνται πλέον μέτριου κινδύνου

γ) η εκτίμηση κινδύνου πρέπει να γίνεται στους πρώτους 6 μήνες αγωγής και BMD εκτίμηση κάθε 2-3 χρόνια, σε όσους συνεχίζουν στεροειδή

δ) θεραπευτικά, αντιμετώπιση πρέπει να γίνεται με bisphosphonates, teriparatide και **denosumab**, ενώ

ε) ΟΛΟΙ οι ασθενείς θα πρέπει να λαμβάνουν **Ca & βιτ D3**, ανεξαρτήτως κινδύνου

# ΚΑΠΟΙΟΣ ΔΕΝ ΚΑΝΕΙ ΣΩΣΤΑ ΤΗ ΔΟΥΛΕΙΑ ΤΟΥ

- Λιγότεροι από το 1/3 => **BMD** έλεγχος
- Λιγότεροι από το 1/3 : λήψη **calcium + vitamin D**
- Χορήγηση **bisphosphonate** είναι χαμηλή (ιδίως σε πιο νέες ηλικίες)



## 4 πιο ανησυχητικές ΑΕ των ΓΚ Λοιμώξεις

- Παράγοντες κινδύνου : ηλικία (> 60) – άνδρες (γεν. πληθυσμό)
- Προσοχή : ΧΑΠ, ΧΝΑ, ΣΚΑ, ΣΔ, νευρολογικές διαταραχές
- ΗΧ λοιμώξεων
- Εμβολιασμός : influenza, pneumococci , herpes zoster





# 4 πιο ανησυχητικές ΑΕ των ΓΚ

## Υπερ-γλυκαιμία

Εξέλιξη **ήδη** υπάρχουσας δυσ-ανοχής γλυκόζης

- Παράγοντες κινδύνου : γενετική προδιάθεση, ηλικία, ΣΒ
- Φλεγμονή
- Plaqueunil



## 4 πιο ανησυχητικές ΑΕ των ΓΚ CVD



- Παράγοντες κινδύνου : Age, male sex, obesity, hypertension, diabetes , dyslipidaemia
- Φλεγμονή (RA: RF/CCP, εξωαρθρικές εκδηλώσεις)

Literature did **not** show  
an increased risk for **hypertension** in patients  
on **low-dose** GC treatment

FEATURE ARTICLE **FREE**

# Osteonecrosis Following Short-term, Low-dose Oral Corticosteroids: A Population-based Study of 24 Million Patients

Matthew F. Dilisio, MD

**Orthopedics**

**July 2014 - Volume 37 · Issue 7: e631-e636**

Posted July 1, 2014

DOI: 10.3928/01477447-20140626-54

Short-term, **low-dose** oral corticosteroid administration may be associated with a **low** but statistically **significant** increased incidence of osteonecrosis when compared with patients who have never been prescribed a steroid product.

Article  
TextArticle  
infoGastroenterology and hepatology  
Research

## Corticosteroids and risk of gastrointestinal bleeding: a systematic review and meta-analysis

Sigrid Narum<sup>1, 2</sup>, Tone Westergren<sup>3</sup>, Marianne Klemp<sup>4, 5</sup>

PDF

edback

**Conclusions** Corticosteroid use was associated with increased risk of gastrointestinal bleeding and perforation. The increased risk was statistically significant for hospitalised patients only. For patients in ambulatory care, the total occurrence of bleeding or perforation was very low, and the increased risk was not statistically significant.

# Αποτελεσματικότητα CS RA (τελευταία δεδομένα)

218 με ΠΡΩΙΜΗ ΡΑ έγινε έναρξη με methotrexate + 10 mg prednisone (MTX+pred) ή placebo (MTX+plac) => 12 χρόνια !

- Λιγότεροι ξεκίνησαν bDMARD στο σχήμα MTX+pred Vs MTX +plac strategy group: (31% vs 50%,  $p=0.003$ .)
- Στα 2 χρόνια : median erosion score σημαντικά μικρότερο στην ομάδα MTX+pred versus MTX+plac strategy group: ( $p=0.002$ )

*Long-term outcome is better when a methotrexate-based treatment strategy is combined with 10 mg prednisone daily: follow-up after the second Computer-Assisted Management in Early Rheumatoid Arthritis trial. Safy M1, et al Ann Rheum Dis. 2017 Apr 27.*

# Ακτινολογική εξέλιξη στους 6 μήνες



Table 2. Radiographic damage and 6-month progression in placebo groups of 3 biologics trials. Values are mean (SD) unless specified otherwise.

| Variables   | ATTRACT     |             | ASPIRE      |             | LITHE            |             |
|---|-------------|-------------|-------------|-------------|------------------|-------------|
| Baseline damage <sup>†</sup> , mean (SD)/mean (range) | 82.0 (77.0) |             | 11.3 (15.9) |             | 28.5 (0–190.5)   |             |
| Progression   |             |             |             |             |                  |             |
| 1 yr, trial report                                    | 7.0 (10.3)  |             | 3.7 (9.6)   |             | 1.1 <sup>‡</sup> |             |
| 6 mos, interpolated                                   | 3.5 (6.2)   |             | 1.8 (4.8)   |             | 0.6              |             |
| 6 mos, current dataset                                | 4.8 (9.1)   |             | 2.4 (7.4)   |             | 0.5 (1.3)        |             |
| Glucocorticoid use                                    | -           | +           | -           | +           | -                | +           |
| Baseline damage                                       | 92.5 (80.6) | 80.6 (80.9) | 11.6 (15.7) | 10.3 (16.3) | 25.3 (29.0)      | 31.0 (33.9) |
| Progression   | 7.7 (13.1)  | 2.9 (4.9)   | 3.2 (7.9)   | 0.9 (6.4)   | 0.5 (1.4)        | 0.5 (1.3)   |

# Glucocorticoid Effect on Radiographic Progression in Placebo Arms of Rheumatoid Arthritis Biologics Trials

Maarten Boers, Daniel Aletaha, Christopher M. Mela, Daniel G. Baker, and Josef S. Smolen

## ΣΥΜΠΕΡΑΣΜΑΤΑ

Η αγωγή με ΓΚ έχει ευεργετική δράση στη α/α εξέλιξη , σε 2 /3 placebo-biologic arms of biologics trials

*LITHE trial :*

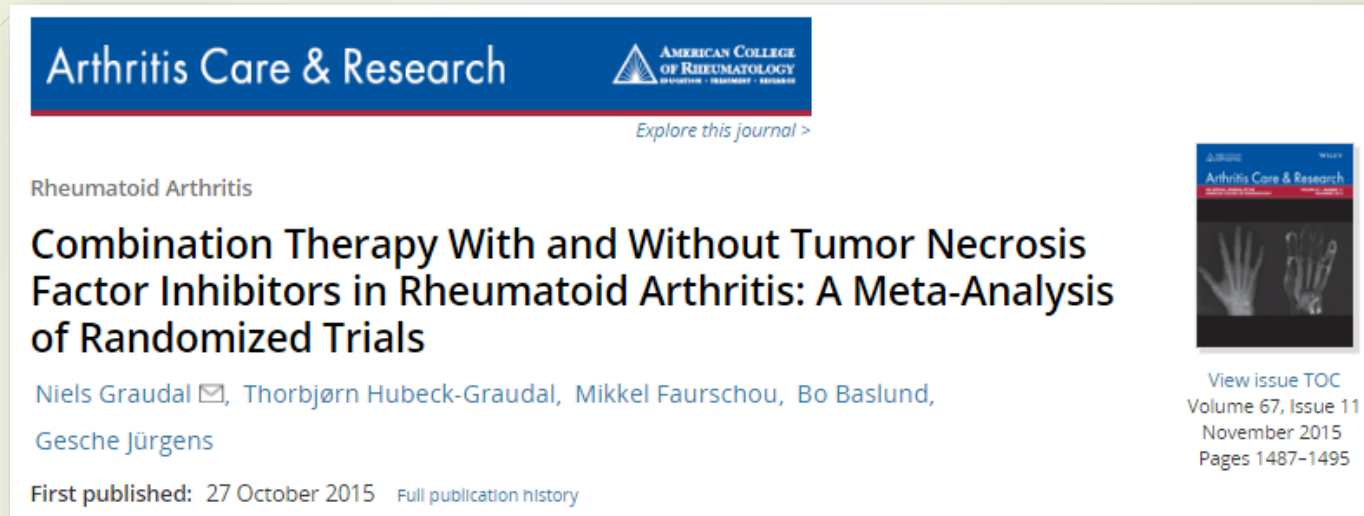
- ▶ overall low progression rate
- ▶ Genant score : *a lower maximum and a different handling of erosions*

# ΔΕΝ ΕΙΝΑΙ Η ΜΟΝΗ ΜΕΛΕΤΗ !

- ▶ Kirwan JR and the Arthritis and Rheumatism Council Low-Dose Glucocorticoid Study Group. The effect of glucocorticoids on joint destruction in rheumatoid arthritis. The Arthritis and Rheumatism Council Low-Dose Glucocorticoid Study Group. *N Engl J Med* 1995;333:142-6. [MEDLINE]
- ▶ Boers M, Verhoeven AC, Markusse HM, et al. Randomised comparison of combined step-down prednisolone, methotrexate and sulphasalazine with sulphasalazine alone in early rheumatoid arthritis. *Lancet* 1997;350:309-18. [MEDLINE]
- ▶ Dougados M, Combe B, Cantagrel A, et al. Combination therapy in early rheumatoid arthritis: a randomised, controlled, double blind 52 week clinical trial of sulphasalazine and methotrexate compared with the single components. *Ann Rheum Dis* 1999;58:220-5. [MEDLINE]
- ▶ Landewe RB, Boers M, Verhoeven AC, et al. COBRA combination therapy in patients with early rheumatoid arthritis: long term structural benefits of a brief intervention. *Arthritis Rheum* 2002;46:347-56. [MEDLINE]
- ▶ van Everdingen AA, Jacobs JWJ, van Reesema DRS, Bijlsma JWJ. Low-dose prednisone therapy for patients with early active rheumatoid arthritis: clinical efficacy, disease-modifying properties, and side effects: a randomized, double-blind, placebo-controlled clinical trial. *Ann Intern Med* 2002;136:1-12. [MEDLINE]



# ΙΣΧΥΡΑ ΔΕΔΟΜΕΝΑ



The screenshot shows the top section of a journal article page. At the top left is the journal title 'Arthritis Care & Research' in white text on a blue background. To its right is the American College of Rheumatology logo and the text 'AMERICAN COLLEGE OF RHEUMATOLOGY'. Below the journal title is a link 'Explore this journal >'. The main title of the article is 'Combination Therapy With and Without Tumor Necrosis Factor Inhibitors in Rheumatoid Arthritis: A Meta-Analysis of Randomized Trials'. Below the title are the authors: Niels Graudal, Thorbjørn Hubeck-Graudal, Mikkil Faurschou, Bo Baslund, and Gesche Jürgens. At the bottom left of the article preview is the text 'First published: 27 October 2015' and a link 'Full publication history'. On the right side of the article preview is a small thumbnail image of the journal cover and the text 'View issue TOC', 'Volume 67, Issue 11', 'November 2015', and 'Pages 1487-1495'.


Arthritis Care & Research

AMERICAN COLLEGE OF RHEUMATOLOGY

Explore this journal >

Rheumatoid Arthritis

**Combination Therapy With and Without Tumor Necrosis Factor Inhibitors in Rheumatoid Arthritis: A Meta-Analysis of Randomized Trials**

Niels Graudal , Thorbjørn Hubeck-Graudal, Mikkil Faurschou, Bo Baslund, Gesche Jürgens

First published: 27 October 2015 [Full publication history](#)

View issue TOC  
Volume 67, Issue 11  
November 2015  
Pages 1487-1495

Σημαντικές διαφορές , υπερ της TNFi αγωγής

➤ ακτινολογική εξέλιξη

➤ ACR50 & ACR70

Στους **6 μήνες** αγωγής

# Βιολογικός Vs 3πλής συνδυαστικής αγωγής



The screenshot shows the top section of a journal article page. At the top left is the journal title 'Arthritis Care & Research' in white text on a blue background. To its right is the logo of the American College of Rheumatology, which includes the text 'AMERICAN COLLEGE OF RHEUMATOLOGY' and 'ESTABLISHED 1947'. Below the journal title is a link that says 'Explore this journal >'. The main title of the article is 'Combination Therapy With and Without Tumor Necrosis Factor Inhibitors in Rheumatoid Arthritis: A Meta-Analysis of Randomized Trials'. Below the title are the authors: 'Niels Graudal', 'Thorbjørn Hubeck-Graudal', 'Mikkel Faurschou', 'Bo Baslund', and 'Gesche Jürgens'. At the bottom left of the article preview, it says 'First published: 27 October 2015' and 'Full publication history'. On the right side of the article preview, there is a small thumbnail image of the journal cover and text that reads 'View issue TOC', 'Volume 67, Issue 11', 'November 2015', and 'Pages 1487-1495'.

## ΟΜΩΣ

Οι διαφορές αυτές :

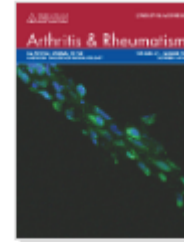
- Δεν φάνηκαν στους ασθενείς με **αρχική χορήγηση κορτικοστεροειδών**
- Εξαφανίστηκαν στους 24 μήνες, ανεξάρτητα της λήψης ΚΣ



[Explore this journal >](#)

Rheumatoid Arthritis

Similar effects of disease-modifying antirheumatic drugs, glucocorticoids, and biologic agents on radiographic progression in rheumatoid arthritis: Meta-analysis of 70 randomized placebo-controlled or drug-controlled studies, including 112 comparisons



[View issue TOC](#)  
Volume 62, Issue 10  
October 2010  
Pages 2852-2863

A direct comparison between the  
combination of a biologic agent plus MTX

And

the combination of 2 DMARDs plus initial glucocorticoids  
revealed

**no difference**

The screenshot shows the Cochrane Library website interface. At the top left is the Cochrane Library logo with the tagline 'Trusted evidence. Informed decisions. Better health.' To the right is a search bar with the text 'Search title, abstract, keyword' and a magnifying glass icon. Below the search bar are buttons for 'Browse' and 'Advanced Search'. A purple navigation bar contains links for 'Cochrane Reviews', 'Trials', 'More Resources', 'About', and 'Help'. Below this is a link to 'Go to old article view'. The main content area displays the title 'Effects of glucocorticoids on radiological progression in rheumatoid arthritis' under the heading 'Cochrane Database of Systematic Reviews'. To the left of the title are icons for 'PDF' and 'Info'.

- 15 μελέτες /1.414 ασθενείς
- Κυρίως πρώιμη RA (μέχρι 2 χρόνια ) / επιπρόσθετα DMARD

The standardised mean difference στην α/α εξέλιξη ήταν 0.40 υπερ glucocorticoids (95% CI 0.27, 0.54) vs placebo

Η ευεργετική δράση : Σε συνδυασμό με DMARD

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Editorial

## All Patients with Rheumatoid Arthritis Should Receive Corticosteroids as Part of Their Management



**SIMON CARETTE, MD, MPhil, FRCPC,**  
Professor of Medicine,  
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University Health Network/Mount Sinai  
Hospital,  
University of Toronto,  
Toronto, Ontario, Canada

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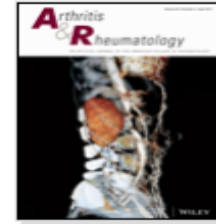
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Rheumatoid Arthritis

## Rheumatoid Arthritis and Risk of Malignant Lymphoma: Is the Risk Still Increased?

K. Hellgren , E. Baecklund, C. Backlin, C. Sundstrom, K. E. Smedby, J. Askling



[View issue TOC](#)

- ο κίνδυνος για λέμφωμα είναι **αυξημένος στην PA** (*HR 1.6 (95% confidence interval [95% CI] 1.2–2.1)* / συσχέτιση με ενεργότητα
- ο κίνδυνος αυτός **δεν** φαίνεται να έχει αλλάξει στη διάρκεια του χρόνου
- η χορήγηση **κορτικοστεροειδών τον πρώτο χρόνο σχετίστηκε με μείωση του κινδύνου** (*HR 0.5 [95% CI 0.3–0.9]*)



# γλυκοκορτικοειδη στην ΡΑ ΣΥΜΠΕΡΑΣΜΑΤΑ

## Τοξικότητα των ΓΚ

- Ηλικία
- ΣΒ
- δόση
- Διάρκεια θεραπείας

Οι μικρότερες δόσεις για το μικρότερο χρονικό διάστημα

Ο φόβος των ΑΕ των μεγάλων δόσεων έχει «επεκταθεί» και στις μικρές



# γλυκοκορτικοειδη στην ΡΑ ΣΥΜΠΕΡΑΣΜΑΤΑ

- Η μακροχρόνια χορήγηση ΜΙΚΡΩΝ δόσεων CS φαίνεται ΠΛΕΟΝ να είναι ασφαλής
- Ίσως είναι λάθος να ΜΗ δώσει κανείς , τουλάχιστον στην αρχή (ΡΑ)

Είναι βέβαιο  
ότι θα βοηθήσει

Είναι απίθανο  
ότι θα βλάψει



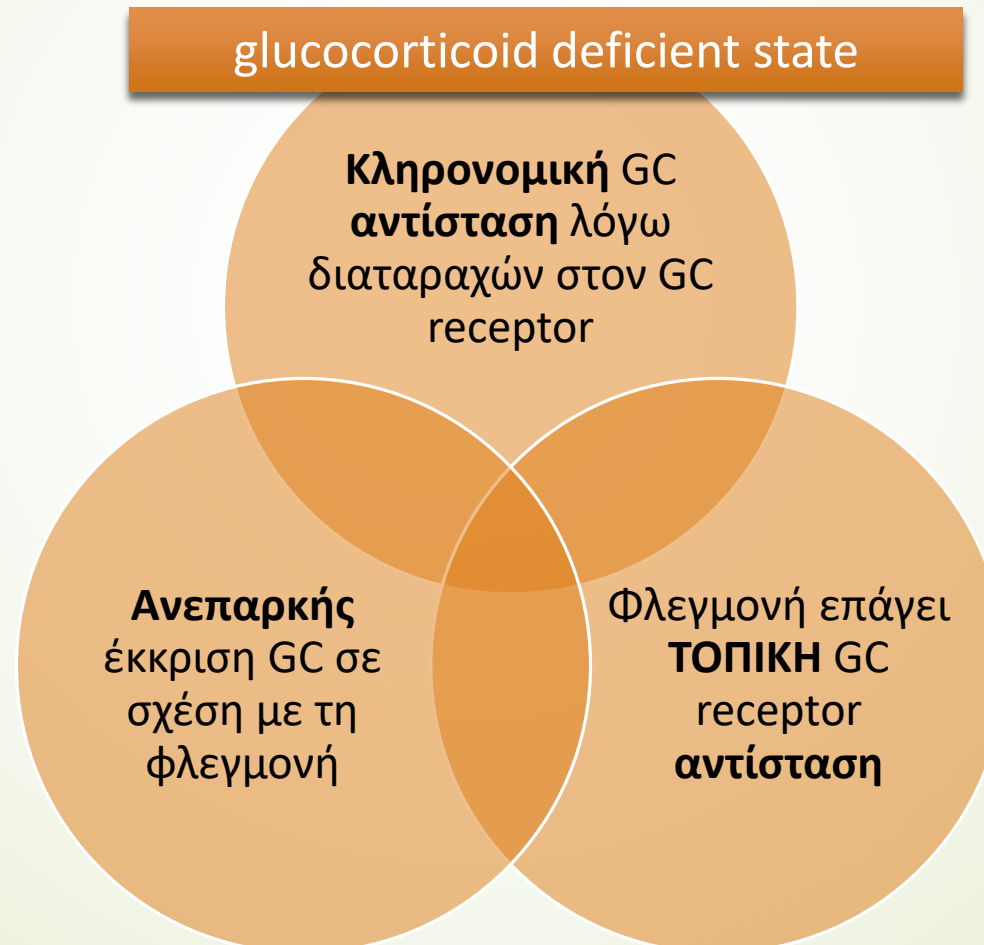


# γλυκοκορτικοειδη στην RA ΣΥΜΠΕΡΑΣΜΑΤΑ

Κατά τη διάρκεια αντιμετώπισης της RA, ο κίνδυνος για ΑΕ από τα GC μπορεί να ελαχιστοποιηθεί :

- Ακολουθεί τις συστάσεις
- Εξατομίκευση ασθενούς : παρουσία ή απουσία συγκεκριμένων παραγόντων κινδύνου

# ΤΑ ΝΟΣΗΜΑΤΑ ΑΥΤΑ...ΧΡΕΙΑΖΟΝΤΑΙ ΚΟΡΤΙΖΟΝΗ !



Ιωάννινα

