

Perceptions on antirheumatic drugs

An explorative study in a selected group of Patient Partners

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Background: Perceptions on drugs play an important role in therapy compliance and might partly be explained by patient education. Patient Partners (PP) are educated and trained patients with a rheumatic disease who teach medical students and general practitioners how to diagnose and evaluate their rheumatic disease.

Objective: To describe the perceptions of patients with a rheumatic disease about three commonly used antirheumatic drugs: glucocorticoids, methotrexate (MTX) and biological therapy.

Patients and methods: 38 patients participated, 22 PP and 16 patients randomly selected during an outpatient visit at the University Hospital of Leuven. Participant characteristics were: 78,9% women, median age of 52 y and a median disease duration of 15 y. Patients had Rheumatoid Arthritis (n=27), Spondyloarthropathy (n=8) or Juvenile Idiopathic Arthritis (n=3). A self-administered questionnaire was conducted asking for 5 positive and 5 negative perceptions about oral glucocorticoids, MTX (oral and IM) and biological therapy (SC and IV). Twenty-four patients (63,2%) took glucocorticoids currently or in the past, 32 (84,2%) MTX and 23 (60,5%) a biological therapy. A weighted importance score was given to the answers, which were categorized into main concepts.

Results: A total of 480 answers, 250 negative and 230 positive, were given. The PP group gave more answers (n=361; 75,2%). Biological therapy had the most positive (n=87; 37,8%) and the least negative (n=73; 29,9%) statements. MTX had the most negative (n=89; 35,6%) and the least positive (n=70;30,4%) answers. Table 1 summarizes the most important positive and negative perceptions: all three antirheumatic drug categories were thought to be “effective”. Glucocorticoids were typically perceived as “fast-acting” and “pain controlling” while in biological therapy “improved functionality and quality of life” and “mental impact” were important. At the negative side, glucocorticoid “side effects”, such as oedema, risk for diabetes and skin bruising, contributed a lot, as also “increase in weight” and “risk of osteoporosis”. “Fatigue” was the most associated with MTX, even as “the nature of the medication”, referring to MTX as a chemotherapy-type of drug, and which was only reported by PP. “Gastrointestinal side effects” were very importantly associated with MTX. Remarkably, “increased risk of infection” was mostly reported and also highest rated in biological therapy. Just as “user unfriendly”, what stands for IV-related consequences such as transport to the hospital, and SC drug-related consequences such as storage of the product. Further were “uncertainty about the future” and “high costs” important concepts regarding biological therapy.

Discussion: Some classical expected perceptions on drugs were confirmed. Effectiveness was a common perception highly ranked in all drug categories. Glucocorticoids are still feared. A perhaps surprising perception is the higher infection risk of biological therapy compared to the other drugs. A positive mental impact was importantly perceived in biological therapy, and for this drug class there were the most concerns for yet unknown consequences. Fatigue was mainly associated with the old drug MTX as were gastro-intestinal side effects, which might play an important role in the optimal use of this treatment. Healthcare professionals should pay attention to the believes of patients as these (true or misperceptions) might play a role in therapy compliance. The sample size in this study was too small to conclude about differences in educated and less educated patients.

table 1: Weighted top 3 of patients' positive and negative perceptions about glucocorticoids, methotrexate and biological therapy.

Weighted top 3	Glucocorticoids		Methotrexate		Biological therapy	
	+	-	+	-	+	-
	n=30	n=30	n=33	n=29	n=35	n=28
1	Pain controlling 31%	Side effects 53%	Effectiveness 57%	Side effects 29,7%	Effectiveness 53,4%	Not user friendly 22,1%
2	Fast-acting 27,6%	Risk of osteoporosis 14%	User friendly 11,8%	Gastro-intestinal side effects 23,1%	Functionality and Quality of life 11,4%	Increased risk of infection 20%
3	Effectiveness 18,3%	Increase of weight 10%	Pain controlling 10,6%	User friendly 15,9%	Mental impact 8,3%	Side effects 18,2%

+ positive perceptions about the medication

- negative perceptions about the medication