AB1211  A RETROSPECTIVE ANALYSIS OF LABORATORY ABNORMALITIES FOUND DURING METHOTREXATE MONITORING AND THE COST IMPLICATIONS
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Background: Methotrexate (MTX) remains the first line treatment in major- ity of cases of inflammatory arthritis. The current British Society of Rheumatology (BSR) Guidelines suggest checking Full blood count (FBC), ALT/AST, Creatinine, Albumin, CRP and ESR in 0-6 months after starting. After the first year, tests were performed in our clinic every 6 months. Our aim was to evaluate the incidence of laboratory toxicities that are associated with MTX treatment in a large cohort of patients.

Methods: All patients who were on MTX for >1 year were reviewed individually for all patients. Severe Liver toxicity (LS) was defined as ALT/AST >100 U/l; unexplained reduction in albumin <30 g/l or increase in bilirubin >30% over 12 months and/or calculated GFR <60 ml/min. Mild renal toxicity (RM) was between normal and LS. Severe renal toxicity (RS) was defined as Creatinine increase –30% over 12 months and/or calculated GFR <60 ml/min. Mild renal toxicity (RM) was between normal and RS. Severe haematological toxicity (HS) was between normal and LM. moderate toxicities are much less common and a more relaxed monitoring schedule does not include travel expenses, parking charges and time off work for appointments in phlebotomy.

Results: Over 1 year, 101 patients had total of 609 blood tests for MTX monitoring (Min 1 Max 17). FBC, Liver function Test, Urea & Electrolytes, CRP and ESR each cost £8.54. LS was found in 4 patients, LM in 15, HS in 3 and RM in 2 patients. MTX was stopped in all 4 patients with LS. Mild toxicities (LM, HS and RM) recovered after close monitoring or reduction in dose. 5 patients with minor toxicities were on MTX for <1 year. Rest of the patients were on stable dose of MTX for >1 year. All patients with severe and mild toxicities did not have any significant comorbidities compared to rest of the patients. It was calculated that detecting one LS cost (609x8.54)/4 = £1300.2. Similarly one LM cost £346.7, one HM £1733.6 and one RM £2660.43. These costs does not include travel expenses, parking charges and time off work for appointments in phlebotomy.

Conclusion: Our cohort shows that mild liver toxicity is the most commonly found abnormality during MTX monitoring and patients on stable doses still need monitoring for liver toxicity. Haematological and renal toxicities are much less common and a more relaxed monitoring schedule may be acceptable for these parameters. Regular monitoring for inflammatory markers (CRP, ESR) causes an extra cost burden. The direct costs of detecting one abnormality is considerable.

REFERENCES


AB1212  POLYPHARMACY AND OUTPATIENT HEALTHCARE USE IN RHEUMATOID ARTHRITIS: PATTERNS AND ASSOCIATIONS
George E. Frapoulis1, Savvas Paspalosa2, Christina Flourou3, Andreas Tofarides3, Elena Nikiphorou4.

Background: Polypharmacy is a considerable problem in people with rheumatic diseases, including rheumatoid arthritis (RA), related amongst others to worse disease outcomes and increased cost for the health-sys- tem. (1)

Objectives: To assess polypharmacy in RA and usage of the health-care system (outpatient clinics) in a real-world setting.

Methods: Medical records of 170 consecutive RA patients from a large outpatient service of a central hospital were retrospectively reviewed. Demographic charac- teristics, treatment for RA and comorbidities as well as frequency and type of visits to any outpatient services were recorded. The latter included rheumatologists, "medical specialties" doctors (general physicians, cardiologists, respiratory physi- cians, oncologists, dermatologists, gastroenterologists, hematologists, nephrolo- gists and neurologists) and "surgical specialties" (general surgery, orthopedics, neurosurgery, urology, ophthalmology, ENT, maxillofacial and vascular surgery). Disease duration was defined as the time between RA diagnosis and the end of the study (May 2018). Univariable and multivariable analyses were performed (Table).

Results: Data from 170 RA patients (77.1% female) with a mean±SD age of: 62.1 ± 13.7 years and disease duration: 87.8 ± 22.0 months, were recorded. The median number of non-rheumatic drugs received throughout disease duration was 3. Only 7% of the patients were not receiving any additional drugs, while 15.3%, 40.6% and 56.4% had received 1, 2 and 3 non-rheumatic drugs, respectively. The most commonly used non-rheumatic drugs were: anti-hypertensives, anti-osteoporotic and lipid-lowering drugs. Higher total number of drugs correlated with age of the patient and longer disease duration. Methotrexate (MTX) experi- enced or biologic-naive patients, had received a larger number of non- rheumatic drugs compared to those who had not received methotrexate or were biologic-experienced. Multivariable analysis confirmed age and exposure to methotrexate/biologics to be positively and negatively associa- tion respectively, with the number of non-rheumatic drugs received (Table).

Number of visits to rheumatologists/year were: median (range) 2.9 (0.5 – 13.6). The number of visits was correlated with age of the patients, dis- ease duration and number of non-rheumatic drugs received. Multivariable analysis identified, disease duration, number of non-rheumatic drugs received and being MTX-naive as predictors of number of rheumatology visits (Table).

Conclusion: The majority of RA patients received more than 3 (non-RA related) drugs. This increased with older age and associated with more frequent visits to rheumatology and other specialties.

Table 1

<table>
<thead>
<tr>
<th>Feature</th>
<th>Total number of non-rheumatic drugs</th>
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<th>Multivariable</th>
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<td>Age</td>
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<td>v=0.393</td>
<td>p&lt;0.001</td>
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<td>Gender</td>
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<td>v=0.12</td>
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<td>Disease duration</td>
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<td>v=0.340</td>
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<td>MTX naive</td>
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<td>MTX exposure</td>
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