# Traitement du syndrome de Sjögren en 2013





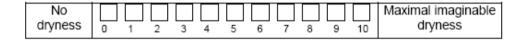
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# Evaluer les conséquences biologiques et radiologiques

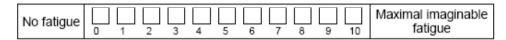
- Biologie
  - VS, CRP
  - NFS
  - BH, ionogramme, créatinine, NEFU, protéinurie
  - Electrophorèse+/-dosage pondéral et IEP
  - C4, CH50
  - cryoglobulinémie
  - FAN et spécificité
  - FR
  - B2 microglobuline
- Imagerie
  - Radiographie pulmonaire initiale et si symptôme

#### **ESSPRI**

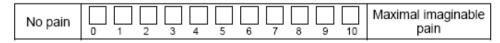
1) How severe has your dryness been during the last 2 weeks?



2) How severe has your fatigue been during the last 2 weeks?



3) How severe has your **pain** (joint or muscular pains in your arms or legs) been during the last 2 weeks?



4) How severe has your **mental fatigue** (not thinking clearly, finding it hard to concentrate, forgetting things, or making mistakes) been during the last 2 weeks?

| No mental |   |   |   |   |   |   |   |   |   |   |    | Maximal imaginable |
|-----------|---|---|---|---|---|---|---|---|---|---|----|--------------------|
| fatigue   | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | mental fatigue     |

Table 3. The EULAR Sjögren's Syndrome Disease Activity Index (ESSDAI): Domain and item definitions and weights.

| Domain [Weight]                                | Activity level | Description   |  |  |  |  |  |
|--|----------------|---|--|--|--|--|--|
| Constitutional [3]                             | No = 0         | Absence of the following symptoms   |  |  |  |  |  |
| Exclusion of fever of                          | Low = 1        | Mild or intermittent fever (37.5°-38.5°C) / night sweats and/or involuntary weight loss of 5 to 10% of body weight                                  |  |  |  |  |  |
| infectious origin and<br>voluntary weight loss | Moderate = 2   | Severe fever (>38.5°C) / night sweats and/or involuntary weight loss of >10% of body weight   |  |  |  |  |  |
| Lymphadenopathy [4]                            | No = 0         | Absence of the following features   |  |  |  |  |  |
| Exclusion of infection                         | Low = 1        | Lymphadenopathy ≥ 1 cm in any nodal region or ≥ 2 cm in inguinal region   |  |  |  |  |  |
|  | Moderate = 2   | Lymphadenopathy $\geq 2$ cm in any nodal region or $\geq 3$ cm in inguinal region, and/or splenomegaly (clinically palpable or assessed by imaging) |  |  |  |  |  |
|  | High = 3       | Current malignant B-cell proliferative disorder   |  |  |  |  |  |
| Glandular [2]                                  | No = 0         | Absence of glandular swelling   |  |  |  |  |  |
| Exclusion of stone or                          | Low=1          | Small glandular swelling with enlarged parotid (≤ 3 cm), or limited submandibular or lachrymal swelling   |  |  |  |  |  |
| infection                                      | Moderate = 2   | Major glandular swelling with enlarged parotid (> 3 cm), or important submandibular or lachrymal swelling   |  |  |  |  |  |
| Articular [2]                                  | No = 0         | Absence of currently active articular involvement   |  |  |  |  |  |
| Exclusion of osteoarthritis                    | Low = 1        | Arthralgias in hands, wrists, ankles and feet accompanied by morning stiffness (>30 min)  |  |  |  |  |  |
| -  | Moderate = 2   | 1 to 5 (of 28 total count) synovitis  |  |  |  |  |  |
|  | High = 3       | ≥ 6 (of 28 total count) synovitis   |  |  |  |  |  |
| Cutaneous [3]                                  | No = 0         | Absence of currently active cutaneous involvement   |  |  |  |  |  |
| Rate as "No activity" stable                   | Low=1          | Erythema multiforma   |  |  |  |  |  |
| long-lasting features related                  | Moderate = 2   | Limited cutaneous vasculitis, including urticarial vasculitis, or purpura limited to feet and ankle, or subacute cutaneous lupus                    |  |  |  |  |  |
| to damage                                      | High = 3       | Diffuse cutaneous vasculitis, including urticarial vasculitis, or diffuse purpura, or ulcers related to vasculitis                                  |  |  |  |  |  |
| Pulmonary [5]                                  | No =0          | Absence of currently active pulmonary involvement   |  |  |  |  |  |
| Rate as "No activity" stable                   | Low = 1        | Persistent cough or bronchial involvement with no radiographic abnormalities on radiography   |  |  |  |  |  |
| long-lasting features related                  |                | Or radiological or HRCT evidence of interstitial lung disease with: No breathlessness and normal lung function test.                                |  |  |  |  |  |
| to damage, or respiratory                      | Moderate = 2   | Moderately active pulmonary involvement, such as interstitial lung disease shown by HRCT with shortness of breath on exercise (NHYA II)             |  |  |  |  |  |
| involvement not related to                     |                | or abnormal lung function tests restricted to: 70% >DL <sub>CO</sub> ≥ 40% or 80%>FVC≥60%   |  |  |  |  |  |
| the disease (tobacco use<br>etc.)              | High = 3       | Highly active pulmonary involvement, such as interstitial lung disease shown by HRCT with shortness of breath at rest (NHYA III, IV) or             |  |  |  |  |  |
| eic.)  |                | with abnormal lung function tests: DL <sub>CO</sub> < 40% or FVC< 60%   |  |  |  |  |  |
| Renal [5]                                      | No = 0         | Absence of currently active renal involvement with proteinuria < 0.5 g/d, no hematuria, no leucocyturia, no acidosis, or long-lasting stable        |  |  |  |  |  |
| Rate as "No activity" stable                   |                | proteinuria due to damage   |  |  |  |  |  |
| long-lasting features related                  | Low = 1        | Evidence of mild active renal involvement, limited to tubular acidosis without renal failure or glomerular involvement with proteinuria             |  |  |  |  |  |
| to damage, and renal                           |                | (between 0.5 and 1 g/d) and without hematuria or renal failure (GFR≥60 ml/min)  |  |  |  |  |  |
| involvement not related to<br>the disease.     | Moderate = 2   | Moderately active renal involvement, such as tubular acidosis with renal failure (GFR <60 ml/min) or glomerular involvement with                    |  |  |  |  |  |
| ine aisease.<br>If biopsy has been             |                | proteinuria between 1 and 1.5 g/d and without hematuria or renal failure (GFR ≥60 ml/min) or histological evidence of extra-membranous              |  |  |  |  |  |
| performed, please rate                         |                | glomerulonephritis or important interstitial lymphoid infiltrate  |  |  |  |  |  |
| activity based on                              | High = 3       | Highly active renal involvement, such as glomerular involvement with proteinuria >1.5 g/d or hematuria or renal failure (GFR <60 ml/min),           |  |  |  |  |  |
| histological features first                    |                | or histological evidence of proliferative glomerulonephritis or cryoglobulinemia related renal involvement  |  |  |  |  |  |

| Domain [Weight]  | Activity level | Description  |  |  |  |  |
|--|----------------|--|--|--|--|--|
| Exclusion of weakness due  | Low = 1        | Mild active myositis shown by abnormal EMG or biopsy with no weakness and creatine kinase (N ≤CK ≤ 2N)   |  |  |  |  |
| to corticosteroids   | Moderate = 2   | Moderately active myositis proven by abnormal EMG or biopsy with weakness (maximal deficit of $4/5$ ), or elevated creatine kinase (2N $\leq$ CK $\leq$ 4N),   |  |  |  |  |
|  | High = 3       | Highly active myositis shown by abnormal EMG or biopsy with weakness (deficit ≤ 3/5) or elevated creatine kinase (>4N)   |  |  |  |  |
| PNS [5]  | No = 0         | Absence of currently active PNS involvement  |  |  |  |  |
| Rate as "No activity" stable long-lasting features related to damage or PNS involvement not related to the disease | Low = 1        | Mild active peripheral nervous system involvement, such as pure sensory axonal polyneuropathy shown by NCS or trigeminal (V) neuralgia   |  |  |  |  |
|  | Moderate = 2   | Moderately active peripheral nervous system involvement shown by NCS, such as axonal sensory-motor neuropathy with maximal motor deficit of 4/5, pure sensory neuropathy with presence of cryoglobulinemic vasculitis, ganglionopathy with symptoms restricted to mild/moderate ataxia, inflammatory demyelinating polyneuropathy (CIDP) with mild functional impairment (maximal motor deficit of 4/5or mild ataxia),  Or cranial nerve involvement of peripheral origin (except trigeminal (V) neralgia) |  |  |  |  |
|  | High = 3       | Highly active PNS involvement shown by NCS, such as axonal sensory-motor neuropathy with motor deficit ≤3/5, peripheral nerve involvement due to vasculitis (mononeuritis multiplex etc.), severe ataxia due to ganglionopathy, inflammatory demyelinating polyneuropathy (CIDP) with severe functional impairment: motor deficit ≤3/5 or severe ataxia  |  |  |  |  |
| CNS [5]  | No = 0         | Absence of currently active CNS involvement  |  |  |  |  |
| Rate as "No activity" stable long-lasting features   | Low = 1        | Moderately active CNS features, such as cranial nerve involvement of central origin, optic neuritis or multiple sclerosis-like syndrome with symptoms restricted to pure sensory impairment or proven cognitive impairment   |  |  |  |  |
| related to damage or CNS<br>involvement not related to<br>the disease  | High = 3       | Highly active CNS features, such as cerebral vasculitis with cerebrovascular accident or transient ischemic attack, seizures, transverse myelitis, lymphocytic meningitis, multiple sclerosis-like syndrome with motor deficit.  |  |  |  |  |
| Hematological [2]  | No = 0         | Absence of auto-immune cytopenia   |  |  |  |  |
| For anemia, neutropenia,<br>and thrombopenia, only<br>auto-immune cytopenia<br>must be considered                  | Low = 1        | Cytopenia of auto-immune origin with neutropenia (1000 < neutrophils < 1500/mm3), and/or anemia (10 < hemoglobin < 12 g/dl), and /or thrombocytopenia (100,000 < platelets < 150,000/mm3)  |  |  |  |  |
|  |                | Or lymphopenia (500 < lymphocytes < 1000/mm3)  |  |  |  |  |
|  | Moderate = 2   | Cytopenia of auto-immune origin with neutropenia (500 ≤ neutrophils ≤ 1000/mm3), and/or anemia (8 ≤ hemoglobin ≤ 10 g/dl), and/or  |  |  |  |  |
| Exclusion of vitamin or iron   |                | thrombocytopenia (50,000 \le platelets \le 100,000/mm3)  |  |  |  |  |
| deficiency, drug-induced<br>cytopenia  | TT:-t 2        | Or lymphopenia (500/mm3)   |  |  |  |  |
|  | High = 3       | Cytopenia of auto-immune origin with neutropenia (neutrophils < 500/mm3), and/or or anemia (hemoglobin < 8 g/dl) and/or thrombocytopenia (platelets <50,000/mm3)   |  |  |  |  |
| Biological [1]   | No = 0         | Absence of any of the following biological feature   |  |  |  |  |
|  | Low = 1        | Clonal component and/or hypocomplementemia (low C4 or C3 or CH50) and/or hypergammaglobulinemia or high IgG level between 16 and 20 g/L  |  |  |  |  |
|  | Moderate = 2   | Presence of cryoglobulinemia and/or hypergammaglobulinemia or high IgG level > 20 g/L, and/or recent onset hypogammaglobulinemia or recent decrease of IgG level (<5 g/L)  |  |  |  |  |

CIDP= chronic inflammatory demyelinating polyneuropathy, CK= creatine kinase; CNS= central nervous system; DLCO= diffusing CO capacity; EMG= electromyogram; FVC= forced vital capacity; GFR= glomerular filtration rate; Hb= hemoglobin; HRCT= high-resolution computed tomography; IgG= immunoglobulin G; NCS= nerve conduction studies; NHYA= New York heart association classification; Plt= platelet; PNS=peripheral nervous system;

# Pronostic

| Activité lymphocytaire B  | Critères de mauvais pronostiques   | Atteinte viscérale (ESSDAI)   | Fatigue, sécheresse, douleur   |
|---|--|---|--|
| Facteurs rhumatoïdes Ac anti-SS-A, SS-B β2-microglobuline Electrophorèse des protéines plasmatiques Complément Cryoglobulinémie | Parotidomégalie Polyadénopathie Purpura Vascularite Anémie Lymphopénie C4 bas Cryoglobulinémie | Pulmonaires Cutanées Parotidiennes Neurologiques Articulaires Pancréatique Rénales Cytopénies Musculaires Adénopathies Autres | EVA fatigue, sécheresse<br>et douleur<br>Consultation stomatologique<br>Consultation ophtalmologique |

#### Traitements de la sécheresse

- Eviter
  - la fumée,
  - la sécheresse ambiante, le vent,
  - la lecture prolongée,
  - les médicaments
- Prendre des chewing gums ou bonbons sans sucre
- Des substituts de larmes et de salive
- Salive artificielle : en sprays : Aequasyal® : 1 pulvérisation endo-buccale
  à l'intérieur de chaque joue 3 à 4 X/J Artisial® , Syaline® ou Xialive® : 6 à
  8 pullvérisations/jour
- Pour les candidoses buccales:
  - Fluconazole (Triflucan® solution): une cuillère mesure à 50 mg par jour pendant 1 à 2 semaines (à mélanger si besoin à des sirops sans sucre au choix)
  - Fungizone: en bain de bouche aussi
  - bain de bouche bicarbonate à 1,4 %- 500m l+ PROCAINE 2%-10ml, et/ou badigeonnage avec compresses de XYLOCAINE® visqueuse 1% (attendre 2 heures avant de manger ou boire) ou DYNEXAN® 2%.

#### Traitements de la sécheresse

- larmes artificielles (Hydralarm®...), polymères visqueux (Lacrigel®, Dulcilarm®, Methylcellulose®...), gels de carbomères et acide hyaluronique (Vismed®) ou inserts (Lacrisert®).
- La ciclosporine localement.
- Dans les kératites ulcérées graves : Pommade à la vitamine A et fermeture de l'œil

#### Traitements de la sécheresse

- Sialogogues
  - bromhexine (Bisolvon®) et anetholtrithione (Sulfarlem®) non prouvé
  - chlorhydrate de pilocarpine
    - Salagen® 5mg 4 fois par jour ou préparation magistrale,
    - Teinture de Jaborandi 10 à 30 gouttes trois fois par jour
  - la céviméline n'est pas commercialisée pour l'instant en Europe (Exovac® 90mg/j).

## Traitements des signes généraux

- Antalgiques simples en privilégiant le paracétamol
- Les anti-inflammatoires sont quelquefois efficaces.
- La corticothérapie à petites doses (10 à 15 mg) en cure courte.
- Les benzodiazépines ou les antidépresseurs tricycliques (amitriptyline) à petite dose pour ne pas aggraver le syndrome sec

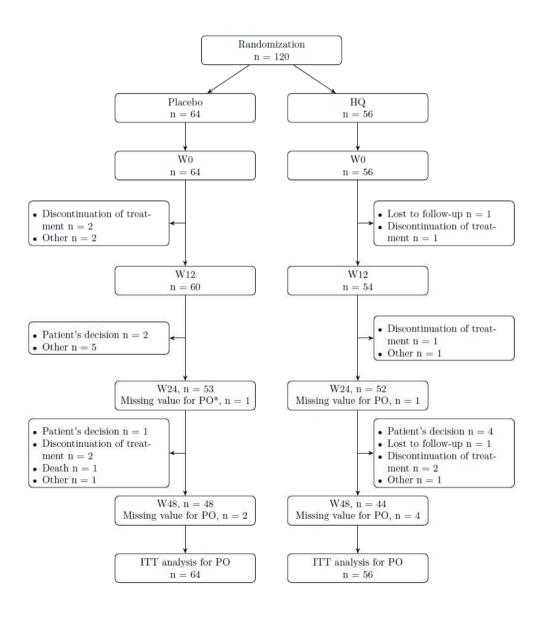
# Traitements des signes viscéraux

- Complications neurologiques
  - Mononeuropathies multiples : corticothérapie initiale (0.5 à 1 mg/kg/jour), azathioprine ou cyclophosphamide
  - Neuropathies périphériques sensitives et sensitivo-motrices: Laroxyl®
  - Névralgie du trijumeau isolée: Laroxyl® ou corticothérapie faible dose.
- Vascularites du système nerveux central
  - Corticoïdes seuls ou en association avec azathioprine ou cyclophosphamide.
- Complications pulmonaires
  - Pneumonie interstitielle lymphoïde: corticothérapie (0.5 à 1 mg/kg/jour) ou en association à l'azathioprine
- Complications néphrologiques
  - néphropathie interstitielle lymphoïde: corticothérapie seule (1 mg/kg/jour) ou en association à un immunosuppresseur.

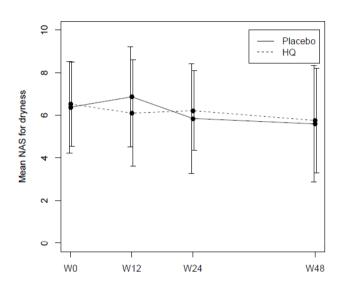
## Traitements des signes viscéraux

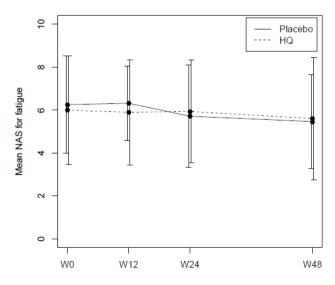
- Complications hématologiques
  - Lymphome : chimiothérapies ou radiothérapie seule.
  - Cytopénies auto-immunes: corticothérapie et/ou immunosuppresseur.
- Complications cutanées :
  - Erythème polymorphe, vascularites, purpura: corticoïdes.
- Complications articulaires (synovites)
  - Méthotrexate ou le léflunomide
- Parotidomégalie
  - Elle doit faire rechercher un lymphome.
  - Elle peut être traitée au coup par coup par corticoïdes (de l'ordre de ¼ à ½ mg/kg) lorsqu'elle évolue par courte crise,
  - mais dans les formes chroniques on évoque de plus en plus la possibilité de traitement par Rituximab
  - De ce fait la chirurgie est le plus souvent évitée.

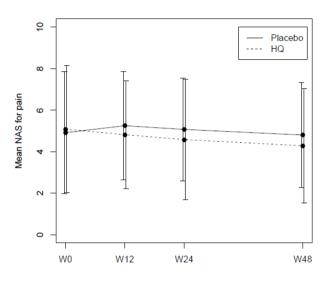
### **Etude JOQUER**

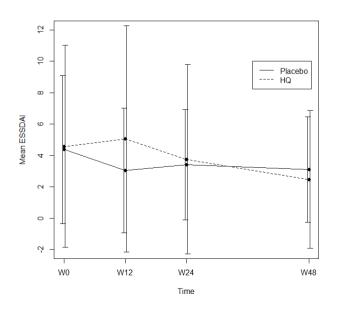


# Etude JOQUER









#### **Trials Evaluating Biologic Agents.**

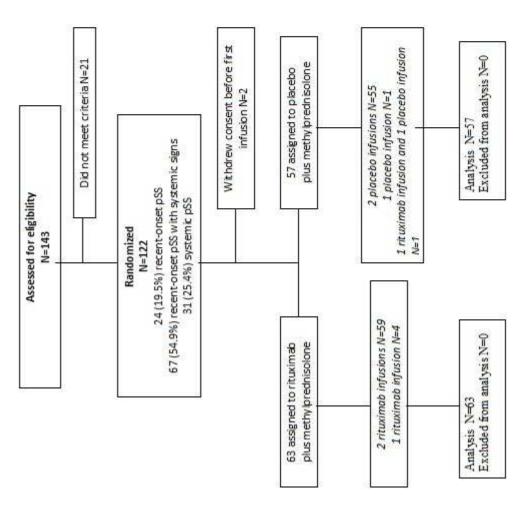
Table 3. Trials Evaluating Biologic Agents

| Source                                 | No.<br>(F, No.)   | Study Design<br>(Duration) | Drug<br>(Patients, No.)                         | Control<br>(Patients, No.)  | Results   | Adverse Events   |
|--|---|----------------------------|---|---|---|--|
|  |   | RCT-d (22 wk)              | Infliximab<br>5 mg/kg<br>(n = 54) wk<br>0, 2, 6 | Placebo<br>(n = 49)   | Primary outcome (vs placebo): % of patients with favorable response (17% vs 20%, $P=.62$ ). Secondary outcomes (vs placebo): patients with ≥30% decrease in pain VAS (20% vs 26%, $P=.46$ ), fatigue VAS (24% vs 24%, $P=.96$ ), and dryness VAS (17% vs 16%, $P=.96$ ); change in salivary flow rate, ml/min (0.03 vs 0.02, $P=.24$ ), Schirmer test, mm (0.9 vs 1.5, $P=.75$ ), swollen joint count ( $-0.4$ vs $-0.3$ , $P=.75$ ), tender joint count ( $-2.4$ vs $-2.3$ , $P=.97$ ), ESR, mm/h ( $-0.8$ vs $-0.9$ , $P=.97$ ), CRP, mg/L ( $-0.4$ vs $-0.5$ , $P=.96$ ), gamma globulins, g/L ( $0.78$ vs $0.13$ , $P=.05$ ), IgG, g/L ( $0.74$ vs $0.03$ , $P=.24$ ), IgA, g/L ( $0.16$ vs $0.09$ , $P=.56$ ), and IgM, g/L ( $0.34$ vs $0.04$ , $P=.001$ ). | Total vs placebo: 11% vs 2% (P = .11); infliximab: 2 infusion reactions, 1 lupus-like rash, 1 autoimmune hepatitis, 1 pneumococcal septicemia, 1 breast cancer; placebo: 1 polyclonal lymph node enlargement |
| Meijer et<br>al, <sup>33</sup><br>2010 | 30 (29) RCT-d (48 wk) Rituximab<br>1 g/15 d<br>(n = 20) wł<br>0 and 2 |                            | 1 g/15 d<br>(n = 20) wk                         | Placebo<br>(n = 10)   | Primary outcome (vs placebo): increased stimulated whole saliva, mL/min (0.66 vs 0.28, NS). Secondary outcomes (vs placebo): increased unstimulated whole saliva, mL/min (0.18 vs 0.05, NS), Schirmer test score, mm/5 min (10 vs 5, NS), lysamine green score (2 vs 4, NS), tear break-up time, sec (6 vs 4, NS), IgM-R, U/L (103 vs 225, NS), MFI general fatigue score (15 vs 14, NS), SF-36 total score (55 vs 62, NS), oral dryness VAS (50 vs 69, NS), dry eyes VAS (46 vs 76, P < .05).  | Total vs placebo: NA; total infections vs placebo: 55% vs 40% (P = .43); 12 infections in 11 rituximab patients, 7 infections in 4 placebo patients  |
| Sankar et<br>al. <sup>34</sup><br>2004 | 25 mg   |                            | Placebo<br>(n = 14)                             | Primary outcome (vs placebo): % of patients with favorable response (36% vs 21%, $P$ = .20). Secondary outcomes (vs placebo): change in dry mouth VAS ( $-2$ vs 3, $P$ = .44), dry eyes VAS (1 vs $-0.5$ , $P$ = .53), salivary flow rate, mL/min ( $-0.03$ vs $-0.22$ , $P$ = .63), Schirmer test, mm/5 min ( $-0.75$ vs $-0.5$ , $P$ = .55), van Bijsterveld score (0 vs $-0.25$ , $P$ = .96), IgG, mg/dL (10 vs $-30$ , $P$ = .82), and ESR, mm/h ( $-5.5$ vs $1.5$ , $P$ = .004). | Total vs placebo: 14% vs 7% (P = .50); AE etanercept: 1 atypical injection-site reaction, 1 rapidly enlarging skin lesion; AE placebo: upper respiratory infection  |  |
| Dass et<br>al, <sup>35</sup><br>2008   | 17 (NA) RCT-d (6 mo) Rituximab<br>1 g/15 d<br>(n = 8) wk<br>0 and 2   |                            | Placebo (n = 9)                                 | Primary outcome (vs placebo): patients with >20% improvement in fatigue VAS (87% vs 56%, $P$ = .36). Secondary outcomes (vs placebo): social functioning SF-36 score (12 vs $-25$ , $P$ = .01), mental health SF-36 score (4 vs $-24$ , $P$ = .06), PROFAD differences NA, RF reduction (45 vs 0, $P$ = .05), immunoglobulin levels (NS), Schirmer test, salivary flow rate (NS).   | 3 serious AE in 2<br>patients (delayed<br>reaction with<br>meningism, probable<br>gastroenteritis,<br>palpitations), 2<br>additional infusion<br>reactions  |  |

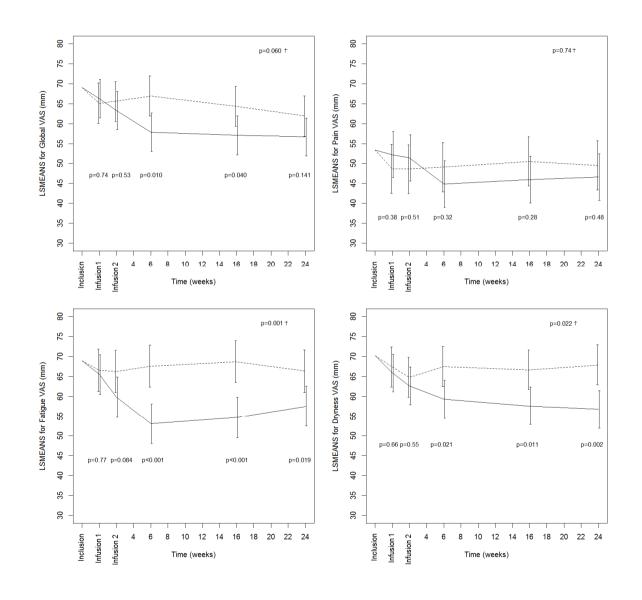
Abbreviations: AE, adverse events; CRP, C-reactive protein; ESR, erythrosedimentation rate; F, female; MFI, Multidimensional Fatigue Inventory; NA, not available; NS, no significant differences; PROFAD, Profile of Fatigue and Discomfort; RCT-d, double-blind randomized controlled trial; RF, rheumatoid factor; SF-36, 36-Item Short Form Health Survey; VAS, visual analog scale.







#### **TEARS**



### Etudes à venir

- Leflunomide
- Epratuzumab (anti CD22)
- Tocilizumab (ETAP) si ESSDAI≥8
- Petites molécules (anti JAK)