Guselkumab for treating active psoriatic arthritis after inadequate response to DMARDs

PART 2a- does not contain confidential information

Technology appraisal committee D [26 May 2022]

Chair: Megan John

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Company: Janssen

Recap: FAD (TA711)

Guselkumab, alone or with methotrexate, is recommended as an option for treating active psoriatic arthritis in adults whose disease has not responded well enough to disease-modifying antirheumatic drugs (DMARDs) or who cannot tolerate them, only if they have:

- peripheral arthritis with 3 or more tender joints and 3 or more swollen joints
- moderate to severe psoriasis (a body surface area of at least 3% affected by plaque psoriasis and a Psoriasis Area and Severity Index [PASI] score greater than 10)
- had 2 conventional DMARDs and at least 1 biological DMARD.

Rapid review of TA711: company submission

- The Committee identified that the key reason for the restricted recommendation was that "the committee's preferred assumptions produced a range of ICERs for guselkumab that were higher than £30,000 per QALY gained in almost all psoriasis severity subgroups" except the moderate-to-severe in the biologic experienced population.
- Company invited to submit updated cost-effectiveness results based on revised PAS
  - Increase in the simple PAS
  - Complex PAS proposed for 4-weekly regimen at the same cost as a 8-weekly regimen by making every other 4-weekly dose available free of charge to the NHS.
- Company also submitted additional evidence for consideration concerning suitability of tofacitinib as a comparator and raised an equalities issue relating to PASI score.

Issues for consideration

- Does safety evidence submitted by company alter the committee's view of tofacitinib as a comparator?
- Does the updated commercial arrangement for the 4-weekly dose alleviate the concerns previously raised by the committee about the 4-weekly dose?
- Would a recommendation restricted by psoriasis severity lead to any equalities concerns?
- Can the guselkumab recommendation be expanded to include additional subgroups in the biologic experienced, biologic naïve and TNFi contraindicated populations, on the basis of the new analyses and cost-effectiveness estimates?

ICER: incremental cost-effectiveness ratio; PAS: patient access scheme; PASI: psoriasis area severity index; QALY: quality-adjusted life year; TNFi: tumour necrosis factor inhibitor

Company submission: tofacitinib as a comparator (1)

Company key points

- Company presents details of post-authorisation safety study looking at tofacitinib versus TNFi in patients with rheumatoid arthritis, who were ≥50 years of age and had at least one cardiovascular risk. Patients treated with both doses of tofacitinib (5m and 10mg) demonstrated a higher incidence of malignancies excluding NMSC, particularly lung cancer and lymphoma, and a higher incidence of myocardial infarctions compared to patients treated with TNFi.
- Company highlights additional safety restrictions regarding the use of JAK inhibitors that emerged during and after the original appraisal:
  - MHRA has issued a safety warning for tofacitinib
  - EMA requesting a special warning to restrict tofacitinib wider use and starting a comprehensive benefit-risk assessment of all JAK inhibitors
  - FDA to issue a safety communication on the same topics
- Since use of tofacitinib is now restricted in certain populations, company considers tofacitinib relevant comparator for a narrower population than guselkumab and other treatments.
- Due to the removal of adverse events from the economic model, company believes that tofacitinib may be associated with higher costs and greater QoL impact than presented in the economic analyses.

EMA: European Medicines Agency; FDA: Food and Drug Administration; JAK: janus kinase; MHRA: Medicines and Healthcare products Regulatory Agency; NMSC: nonmelanoma skin cancer; TNFi: tumour necrosis factor inhibitor; QoL: quality of life

Company submission: tofacitinib as a comparator (2)

NICE technical team key points

- Tofacitinib holds a marketing authorisation and is available as a treatment option.
- Tofacitinib is an unrestricted treatment option in patients under 65 years of age without cardiovascular or malignancy risk factors (as per MHRA advice).
  - TA711 scope states “Men and women are equally likely to develop psoriatic arthritis with the peak onset being between the ages of 30 and 50 years”. It is unclear the extent to which the MHRA’s announcement advice affects this group.
- Tofacitinib has been included as a comparator in the scope for risankizumab (TA10819) for previously treated active psoriatic arthritis, which was issued after the MHRA’s advice.
- Tofacitinib is still part of established NHS practice and is still therefore a relevant comparator.

Qn: Does safety evidence submitted by company alter the committee’s view of tofacitinib as a comparator?

ICER: Incremental cost-effectiveness ratio; MHRA: Medicines and Healthcare products Regulatory Agency; PAS: patient access scheme; QALY: quality-adjusted life year; TNFi: tumour necrosis factor inhibitor

Company submission: 4-weekly dose

Recap

- MA for guselkumab also includes a 4-weekly dose for people at high risk of joint damage.
- Company has explained there is no standard definition among clinicians of 'high risk of joint damage'.
- At the previous committee meeting, the ERG explained that there was no evidence that effectiveness was different between the 8- weekly and 4-weekly doses after 16 weeks and that it reasonable to assume that both doses would also have the same effectiveness for people at high risk of joint damage.
- Committee agreed that it could not reliably evaluate guselkumab's cost effectiveness for people at high risk of joint damage because of the uncertainty in defining the group and in the clinical evidence.
- Committee concluded that, because any additional clinical benefit was uncertain, the doubled cost of 4-weekly dosing compared with 8-weekly dosing reduced guselkumab's cost effectiveness.

Company key points

- Company has requested clarity on recommendations for 4-weekly regimen
- Complex PAS proposed for 4-weekly regimen

Qn: Does the updated commercial arrangement for the 4-weekly dose alleviate the concerns previously raised by the committee about the 4-weekly dose?

ERG: Evidence Review Group; ICER: incremental cost-effectiveness ratio; MA: marketing authorisation; PAS: patient access scheme; QALY: quality-adjusted life year; TNFi: tumour necrosis factor inhibitor

Company submission: equality consideration

Company key points

- Company is of the opinion that current TA711 guidance which requires clinicians to assess severity of skin symptoms, which implies the administration of the PASI instrument, creates an equalities issue.
  - Company states that as rheumatologists do not routinely assess skin conditions (as per BSR clinical guidelines), the PASI criterion is a barrier for patients with PsA and comorbid skin psoriasis.
  - Contrasts to patients with plaque psoriasis who have comorbid PsA as diagnosed by a dermatologist that will have access to guselkumab if eligible as per the NICE TA521 recommendation.

NICE technical team key points

- BSR clinical guidelines published in 2012 state: "The psoriatic arthritis response criteria (PsARC) are recommended as the clinical response criteria for peripheral PsA and a psoriasis area severity index (PASI) score should be completed for patients with significant skin psoriasis in collaboration with a dermatologist."
- The BSR clinical guideline recommendation above applies to all patients irrespective of skin colour or treatment and should be routine practice given the guidelines were produced ~10 years ago.

Qn: Would a recommendation restricted by psoriasis severity lead to any equalities concerns?

BSR: British Society for Rheumatology; PASI: psoriasis area severity index ; PsA: psoriatic arthritis; PsARC: psoriatic arthritis response criteria

Cost-effectiveness analysis

- Because of confidential prices for comparator treatments, the cost-effectiveness analyses are presented in Part 2

- Part 2 slides will discuss:
  - The company's updated base case
  - Fully incremental ICERs and net health benefit for the committee's preferred assumptions
  - Fully incremental ICERs and net health benefit presented by psoriasis severity

ICER: incremental cost-effectiveness ratio