



Common Drug Review *Patient Group Input Submissions*

Ustekinumab (Stelara) for Psoriatic Arthritis

Patient group input submissions were received from the following patient groups. Those with permission to post are included in this document.

Arthritis Consumer Experts — permission granted to post.

Arthritis Society — permission granted to post.

Canadian Psoriasis Network — permission granted to post.

Canadian Skin Patient Alliance — permission granted to post.

CADTH received patient group input for this review on or before April 1, 2014

CADTH posts all patient input submissions to the Common Drug Review received on or after February 1, 2014 for which permission has been given by the submitter. This includes patient input received from individual patients and caregivers as part of that pilot project.

The views expressed in each submission are those of the submitting organization or individual; not necessarily the views of CADTH or of other organizations. While CADTH formats the patient input submissions for posting, it does not edit the content of the submissions.

CADTH does use reasonable care to prevent disclosure of personal information in posted material; however, it is ultimately the submitter's responsibility to ensure no personal information is included in the submission. The name of the submitting patient group and all conflict of interest information are included in the posted patient group submission; however, the name of the author, including the name of an individual patient or caregiver submitting the patient input, are not posted.

Arthritis Consumer Experts

1. General Information

Name of the drug CADTH is reviewing and indication(s) of interest	Ustekinumab (Stelara) for Psoriatic Arthritis
Name of the patient group	Arthritis Consumer Experts (ACE Planning and Consulting, Inc.)
Patient group's contact information:	200A - 1228 Hamilton Street Vancouver, BC V6B 6L2 604-974-1366 feedback@jointhehealth.org info@jointhehealth.org www.jointhehealth.org
Permission is granted to post this submission	Yes

1.1 Submitting Organization

Arthritis Consumer Experts (ACE) is a national arthritis patient organization that provides free education and information programs to people with arthritis. Formed as a private-sector company, ACE operates like any other non-profit group—on unrestricted grants from public and private sector organizations, as well as individual donations.

Arthritis Consumer Experts is committed to the following organizational objectives:

- To inform, educate and empower people with arthritis to help them take control of their disease and improve their quality of life;
- To provide evidence-based information in reader-friendly language to people with arthritis, the public, governments and media;
- To provide research decision-making training to people with arthritis to help them participate meaningfully in research organizations and in consultations with government.

ACE's membership and program subscribers include people with arthritis, their families, their caregivers, rheumatologists, and other health professionals.

1.2 Conflict of Interest Declarations

1.2.1 Regarding corporate members and joint working, sponsorship, or funding arrangements

Arthritis Consumer Experts receives unrestricted grants-in-aid from the following private and public sector organizations: AbbVie Corporation, Amgen Canada, Arthritis Research Centre of Canada, BIOTEC Canada, Bristol-Myers Squibb Canada, the Canadian Rheumatology Research Consortium, Canadian Institutes of Health Research, GlaxoSmithKline, Hoffman-La Roche Canada Ltd., Janssen Inc., Pfizer Canada, Purdue Pharma L.P., Takeda Canada Inc., and the University of British Columbia. ACE also receives unsolicited donations from its community members (people with arthritis) across Canada.

In no way does the funding received by Janssen Inc. influence ACE's opinions or those expressed by the patients interviewed. There was no communication between ACE and Janssen Inc. in the preparation of this submission.

1.2.2 Regarding those playing a significant role in compiling this submission

This is not applicable, as it was solely the staff and advisory board of Arthritis Consumer Experts that aided in the compilation of this information.

2. Condition and Current Therapy Information

2.1 Information gathering

The information was gathered through a request for patient input from JointHealth™ members and subscribers sent via email and posted on the JointHealth™ website. The response by the patients was given through telephone conversations and email correspondence. The following patient input reflects the voice of four women and two men who wish to remain anonymous.

2.2 Impact of Condition on Patients

What are the condition-related symptoms and problems that impact the patients' day-to-day life and quality of life?

The patients' day-to-day life is affected greatly by their PsA. Patients have to consider what they can do for the day and how they will do it. The following are answers provided by the patients interviewed:

- One man, an ultimate frisbee player/coach/captain, said that PsA struck him very quickly. Within four months, he went from having only one finger nearly "lock up" to having 25 joints affected. The pain felt like "an awful hangover with creaky joints." Some days, he will have flare-ups or his jaw will lock up, causing him to have difficulty eating. PsA also affects his feet, making it difficult to walk. To this day, he gets flares every now and then. If he has to postpone an infusion, he gets creaky joints. His PsA also affects his focus and performance on the field.
- The other male respondent has lived with PsA for 25 years. When he provided his input, he had been in the hospital for spinal surgery related to his PsA, and was expecting to be in rehab for four weeks, at least. He has had to put his work and time spent with family on hold while he struggles with PsA related pain and when he is in and out of surgery.
- Of the women we interviewed, one said she has not experienced any PsA related symptoms and problems since using adalimumab (Humira®) a few years ago. She believes the most important aspects of PsA to control are pain, stiffness, and the chronic skin condition. Another woman said she experiences pain in her joints. A third woman says she is able to walk 45 to 90 minutes on flat ground per day but has difficulty climbing up and down stairs and cannot take a bath in the bathtub. She also experiences difficulty with picking up items off the floor. Without medication, she develops pustular psoriasis of her hands and feet. She needs assistance in opening jars, shopping, and vacuuming. She is also unable to sit for prolonged periods of time without a cushion.

2.3 Patients' Experience with Current Therapy

How well are patients managing their condition with currently available treatments?

- The Frisbee player is currently on infliximab (Remicade®). Since his treatment with infliximab, he has been nearly symptom free except for constant fatigue. He gets infliximab infusions every 7-8 weeks, taking 8 ml of methotrexate each week and taking a daily anti-inflammatory (nova-meloxicam). He takes nova-meloxicam on an "as needed" basis and he rarely needs it. Methotrexate alone works for

him too, but it is the combination of methotrexate and infliximab that works best to treat his symptoms. Two adverse effects from the use of methotrexate and infliximab are feeling fatigue and mentally exhausted. Since he is physically active in sports, he sometimes gets injured while playing sports. He believes his arthritis is at the root of his injuries, which causes him to question whether his treatment plan is working. One serious side effect that he worries about is the possibility of developing lymphoma.

- The three women we interviewed are on adalimumab (Humira®). The first one has been using biologics since 2008 and is currently taking adalimumab. She would be interested in switching to ustekinumab (Stelara®) because the two biologics she has tried have not yet targeted her most painful joints. The second woman experienced no real limitations since using adalimumab, which has been taking for a few years. Before adalimumab, she tried several other treatments, but she does not remember what they are. Adalimumab is very effective in controlling the common aspects of her PsA. She is not aware of having any adverse effects. She accesses adalimumab through her private health plan. She believes the government should make expensive medications, like adalimumab, accessible to all those who needs them. The third woman has had PsA for 30 years. She started using adalimumab several years ago; her symptoms are now manageable. She noted that the medication is becoming less effective.
- One woman we interviewed has had PsA since 2002. She is on a combination of treatments, including methotrexate, leflunomide, Tylenol Arthritis, Plaquenil®, sulfasalazine, and Remicade®. She has used etanercept (Enbrel®) before to treat her psoriasis, but it stopped working after three years of treatment. She is currently using Remicade® at a dosage of 500mg every five weeks. In addition, she uses prednisone daily to help with her joint mobility. As a result of using Remicade®, she has developed dactylitis on one toe. Her doctor has to get special authority each year for her Remicade®. Although she wants to be off prednisone, her rheumatologist said there are no other therapy options for her since she is allergic to cyclosporine and anti-inflammatories.

To summarize, all of the patients interviewed believe that the more options there are, the better. Having more options could mean better access to medication, having a backup plan in case the current therapy treatment stops working, and having an economically sound solution in case the current therapy treatment is no longer covered under an insurance plan. All the patients interviewed agree that the best treatment is one that has fewer adverse effects and is not invasive.

In support of research, ACE recently conducted a survey with people living with arthritis. Patients ranked “being able to function and live a normal life” and “having affordable and accessible treatment options” as the top two priorities for them. ACE believes additional therapies will provide each patient with more options for their unique circumstances, when considering which medication to take for their disease.

2.4 Impact on Caregivers

What challenges do caregivers face in caring for patients with this condition? How do treatments impact on the caregivers' daily routine or lifestyle? Are there challenges in dealing with adverse effects related to the current therapy?

- The Frisbee player does not experience adverse effects related to the use of infliximab. Because he is young, active, and is having a positive response to his medication, he does not require caregivers to look after his health.

- The last woman mentioned in section 2.3 of this patient input, relies on her husband to complete all the things that she is unable to do. Her concerns about adverse effects are related to the use of prednisone. Long-term prednisone use can increase blood sugar and affect the body's ability to lose weight despite walking every day and only consuming 1,600 calories a day. Over time, the additional weight on the joints causes them to wear down or deteriorate.

The patients interviewed expressed concerns of adverse effects over a prolonged period. Even though their medication(s) is successful in treating their PsA, a risk of developing other medical conditions is a strong possibility. All the patients agree that they will take the medication that is most effective in treating their PsA and that poses the least chance of adverse effects.

3. Related Information about the Drug Being Reviewed

3.1 Information Gathering

The information was gathered through a request for patient input from JointHealth™ members and subscribers sent via email and posted on the JointHealth™ website. The response by the patients was given through telephone conversations and email correspondence.

3.2 What Are the Expectations for the New Drug or What Experiences Have Patients Had To Date with the New Drug?

3.2.1 Based on no experience using the drug

- One woman expects to be off her prednisone upon using ustekinumab. She also expects the medication to control joint stiffness, pain, psoriasis, and PsA.
- The Frisbee player expects ustekinumab to be as successful as Remicade®, if not better, due to medical advances. He comments that making the medication available in pill form as opposed to infusions or plungers would be preferable. Like other biologics, he expects ustekinumab to be costly. In response to the high cost, he said, "I know of many people that could use biologics but they flat out cannot afford it or do not have the coverage. I think patients would take on some side effects if it drastically limits the arthritis. That being said, I know that some older generations oppose medical therapy due to the fear of addictions or they simply believe that getting older brings on arthritis. On a scale of 1-10 for improvement, I bet a 6 or 7 would be the minimal tolerance for side effects. But it's a sliding scale depending on the side effects."

According to all of the patients, it is difficult to determine with certainty that patients' lives will be improved by ustekinumab. The patients expect any success story to parallel the results from the data and studies of previous treatment methods for other similar medication.

Each person living with arthritis responds differently to each medication, and no single biologic therapy is effective in everyone with a particular condition. In the patients' opinion, access to ustekinumab means a new chance for them to have a treatment that will be more effective in managing their disease if another biologic(s) used before it, fails. Allowing access to the medication can also give professionals the tools to help their patients achieve remission.

ACE recommends a well-rounded treatment plan for PsA that includes medication, education, physiotherapy and occupational therapy, and a healthy diet. Initiation of the right medication in autoimmune arthritis is vital for helping someone gain back and maintain joint health. A patient's support network can help the patient achieve an optimal response to therapy.

3.2.2 Based on patients' experiences with the new drug as part of a clinical trial or through a manufacturer's compassionate supply

None of the patients interviewed had experience with ustekinumab. A manufacturer's compassionate supply is difficult to obtain as it is typically only supplied to adults who are seriously ill or have failed 3 to 4 different therapies.

ACE, like other arthritis organizations in Canada, believes clinical trials are extremely important to advancing research into new and effective treatments. As well, patients across the country who are refractory to current therapies rely on the emerging treatments being tested in clinical trials.

3.2.3 How is the new drug expected to change a patient's long-term health and well-being?

One woman believes she will be able to do more things on her own because she will feel less stiff and more able to bend to pick up items from the floor.

The patients concluded with a plea to the healthcare system to find medications that help people with PsA achieve remission. When a patient achieves remission, they are able to live a normal life free from adverse effects and maximize their full potential as human beings.

4. Additional Information

We have no additional information for CADTH, CDEC, and participating drug plans.

The Arthritis Society

1. General Information

Name of the drug CADTH is reviewing and indication(s) of interest	Ustekinumab (Stelara) for Psoriatic Arthritis
Name of the patient group	The Arthritis Society
Patient group's contact information:	393 University Ave., Suite 1700, Toronto, ON, M5G 1E6 416-979-7228 info@arthritis.ca www.arthritis.ca
Permission is granted to post this submission	Yes

1.1 Submitting Organization

The Arthritis Society is Canada's principal health charity providing vital information and programs to the millions of Canadians with arthritis. Since 1948, The Society has invested more than \$170 million towards innovative research projects that are searching for the causes of, and better treatments for, arthritis. This investment is also used to train rheumatologists, ensuring Canadians can receive the specialized care they need. Annually, The Arthritis Society touches more than 80,000 Canadians with arthritis through the education and services it offers.

1.2 Conflict of Interest Declarations

The Arthritis Society works closely with Janssen Inc. They provide funding to the Society for educational programs and services. Janssen Inc. and The Arthritis Society are both members of the Arthritis Alliance of Canada, where The Society's President and CEO is Chair of the Alliance and Janssen is a member.

The Arthritis Society accepts unrestricted funding from many pharmaceutical companies to continue its mission to assist Canadians living with arthritis to live well with the condition, and to fund research. The vast majority of The Arthritis Society's funding comes from individual donors as personal charitable giving. Over the past 12 months it has received funding from pharmaceutical manufacturers including: Abbvie, Amgen, Bayer, Bristol Myers Squibb, Celgene, Eli Lilly, GlaxoSmithKline, Janssen, Novartis, Pfizer, Roche and UCB. The Society abides by all Canadian Revenue Agency and Imagine Canada requirements, and has specific guidelines on advocacy relating to pharmaceuticals that are available on its website.

2. Condition and Current Therapy Information

2.1 Information Gathering

Information was obtained from the following sources:

- a review of responses to an on-line survey broadly distributed across Canada to anyone with an interest in arthritis including patients, care-givers, and clinicians;
- one-on-one conversations with patients and caregivers through The Arthritis Society's engagement on social media;

- a literature review to better understand patients' and caregivers' experiences in living with arthritis and the need for better treatments.

2.2 Impact of Condition on Patients

Psoriatic arthritis (PsA) is a type of inflammatory arthritis and an autoimmune disease. In PsA, the joints are the target of the immune attack. This causes swelling, pain and warmth (inflammation) in the joints. In most people, psoriatic arthritis starts after the onset of psoriasis. Yet having psoriasis does not mean you will have PsA. In fact, most people with psoriasis will never develop psoriatic arthritis.

PsA usually begins slowly, spreading to other joints over a few weeks to a few months. In rare instances, PsA can develop quickly and be severe. PsA is an unusual type of arthritis because it can look very different from person to person.

Doctors have discovered five general patterns of psoriatic arthritis. In the asymmetric pattern, one of the mildest forms, the psoriatic arthritis affects one to three joints on different sides of the body. In the symmetric pattern, PsA involves many more joints and looks very much like rheumatoid arthritis. In the distal pattern, PsA involves the end joints of the fingers closest to the nails. In the spinal pattern, PsA involves the joints of the spine and the sacroiliac joints linking the spine to the pelvis. Finally, in the destructive pattern, which affects only a few people, PsA is a severe, painful, deforming type of arthritis. This is also known as arthritis mutilans.

PsA can also cause inflammation in tendons around the joints. This is called enthesitis (en-thees-EYE-tis). Some of the common spots for this are the back of the heels, underneath the bottoms of the feet and on the outside of the hips. In other people, PsA can cause the fingers or toes to swell up like sausages. This is referred to as a dactylitis (dac-till-EYE-tis).

People living with PsA have indicated that they are unable or have great difficulty:

- Bending down to pick up clothing from the floor;
- Walking outdoors on flat ground;
- Dressing themselves;
- Getting in and out of bed or the car;
- Washing and drying their body;
- Turning faucets on and off and;
- Lifting a full cup or glass to their mouth.

2.3 Patients' Experiences With Current Therapy

There is no cure for PsA, but when individuals are diagnosed early and start the right treatment, they can take control of their disease and avoid severe damage to their joints. Most people with PsA can lead active and productive lives with the help of the right medication, surgery (in some cases), exercise, rest and joint protection techniques.

There are a number of different kinds of medications available to treat PsA including non-steroidal anti-inflammatory drugs (NSAIDS), steroids, biologics, steroid injections.

Where they work, current treatments are extremely effective. For others, current treatments are not at all effective, or not effective enough. Through conversations with individuals, surveys, and general research we have learned:

- Many patients are not managing their condition as well as they and their physician know is possible.
- A patient told us “Current treatment is effective, to a point. I will never be able to run across the street or live in a house with stairs, and I’m not yet 40.”
- Flares remain unpredictable.
- We heard “My treatment is very effective, for now. I’m scared it will fail me eventually and I will never be able to find another that works.”
- A patient told us “I can feel my (biologic) working immediately during the infusion. It has made a huge difference for me.”
- Others feel their current therapy is not doing enough and that they are not able to walk for more than about a minute at a time, and “Without my current treatment regimen, I feel sure I would not be able to work.”

Unfortunately, there are many adverse effects that can be present with the pharmaceutical treatment of inflammatory arthritis. They include: fever, night sweats, weight loss, tiredness, feeling full after eating only a small amount, stomach pain, easy bruising or bleeding, pale skin, feeling light-headed or short of breath, rapid heart rate, nausea, itching, loss of appetite, dark urine, clay-colored stools, and jaundice.

Patients have communicated major access issues to The Arthritis Society. The cost of medications requires private insurance for coverage, or some patients and their family members who do not have insurance take on additional work to pay for the pharmaceuticals. The requirements to be approved for medications are onerous on the patient. Many provincial drug plans also require significant paperwork and constant checking in to see if the patient requires the medication.

2.4 Impact on Caregivers

Families, friends, and all caregivers of individuals living with arthritis are hit hard with the demands of caregiving.

Patients have told us: “It’s hard on your caregiver when you are vomiting for an entire day because of a medication. They have to plan their life around losing a day (every week) to look after you, or at the very least not be able to count on you to help with family responsibilities.”; “Caregivers may have to help with needles, which can be tricky and often scary; especially when a needle causes pain to the person you are giving it to. It is awful to hurt the person you are trying to help.”

Caregivers also suffer emotionally when they see the patient suffer knowing that there is little they can do about it because the current treatment regime is not providing the outcomes hoped for.

We also know that proper dose, frequency, and ease of application are concerns for health care providers working within a busy practice, and for caregivers who often have little training or expertise.

3. Information about the Drug Being Reviewed

3.1 Information Gathering

Information was obtained from the following sources:

- a review of responses to an on-line survey broadly distributed across Canada to anyone with an interest in arthritis including patients, care-givers, and clinicians;
- one-on-one conversations with patients and caregivers through The Arthritis Society's engagement on social media;
- a literature review to better understand patients' and caregivers' experiences in living with arthritis and the need for better treatments.

3.2 What Are the Expectations for the New Drug or What Experiences Have Patients Had With the New Drug?

PsA is a lifelong condition and often requires complex management, including a regime of powerful drugs that can have multiple affects and interactions. Too many Canadians live with the fear that a drug which has been effective in managing their symptoms can suddenly stop working, requiring a substantial increase in dosage or a change to a new medication. Every day The Arthritis Society sees the difference made by availability of effective medications.

A new treatment option can make a profound difference in the lives of individuals living with PsA who are struggling to control the disease. Canadians and their physicians must be able to select the approved therapy that is best for the management of arthritis. And, if a drug is approved by Health Canada to be marketed in Canada patients tell us that ability to pay must not be a barrier to access.

Specifically dealing with STELARA we know it is a biologic medication that targets an underlying cause of psoriatic arthritis — an overactive immune system. It specifically targets two proteins shown to be present in the blood of people with active psoriatic arthritis — and prevents them from attaching to the cells in their body. We have learned that STELARA may help reduce joint pain, swelling, and stiffness as well as plaque thickness, scaling, and redness.

Canadian Psoriasis Network

1. General Information

Name of the drug CADTH is reviewing and indication(s) of interest	Ustekinumab (Stelara) for Psoriatic Arthritis
Name of the patient group	Canadian Psoriasis Network
Patient group's contact information:	Canadian Psoriasis Network PO Box 8706 Ottawa ON K1G 3J1 819-743-7197 executivedirector@cpn-rcp.com www.CanadianPsoriasisNetwork.com
Permission is granted to post this submission	Yes

1.1 Submitting Organization

The CPN was founded to educate and empower people living with psoriasis and/or caregivers to pursue proper treatment and disease management through education, outreach and research.

1.2 Conflict of Interest Declarations

The CPN does receive a portion of its operating budget from industry.

We have the following declaration(s) of conflict of interest in respect of corporate members and joint working, sponsorship, or funding arrangements:

- AbbVie
- Janssen

We have the following declaration(s) of conflict of interest in respect of those playing a significant role in compiling this submission:

- Nil

2. Condition and Current Therapy Information

In each of the following sections, guidance or examples are provided to help identify the type of information that CADTH, CDEC, and participating drug plans will find most helpful in understanding the needs and preferences of the majority of patients. Objective, experiential information that is representative of the majority of the patient group is preferred. There is no need for patient groups to submit published information, as CADTH's CDR review team and CDEC have access to current scientific literature through the manufacturer's submission and a rigorous, independent literature search. However, relevant unpublished studies may be submitted in addition to the completed template.

2.1 Information Gathering

The following information has been gathered by a combination of personal experience and interaction with people living with PsA over the past 25 years. Through one on one interaction and discussion with

patients and caregivers, patient forums, inflammatory disease patient conference(s), research and advisory panels, disease treatment and management presentations.

2.2 Impact of Condition on Patients

The impact of PsA on those suffering from it, like other inflammatory disease, is often difficult to relay. While words offer an emotive or descriptive means they do little justice to the all-consuming destructive nature of the disease. The best we can offer to those who have no tangible real life experience with the disease is this exercise. On a piece of paper try describing a one kilometer walk with sharp rock in your shoe, then put a sharp rock in your shoe and go for a 1 kilometer walk. At the end remind yourself you cannot take the rock out of your shoe, it's your disease, every foot step will feel that way unless properly treated. Be cautioned, if you actually do this it will forever change how you view and understand chronic inflammatory disease.

2.3 Patients' Experiences With Current Therapy

Due to the fact PsA is an inflammatory immune mediated disease the range of treatments and the efficacy will vary from person to person. There are however some common threads that show better results.

Some patients are managing themselves quite well. These are most often those who are (self)motivated and reject the status quo, have good support networks, access to superior HCP's and unrestricted access to the most effective treatment(s).

How well you manage your condition depends directly on all of the items outlined above, if either is missing or lacking the effect is compounded. How well you are currently managing depends on what you have access to.

The most adverse effect in treating PsA is not treating it properly. Most patients report frustration with access to modern treatments either due to their HCP or treatment payer. There is also a common experience/frustration among patients whereby most treatments offered are directed toward the symptoms. Patient feedback we've collected clearly shows the most important part of treatment is that of preventing the symptoms instead of treating them. Preventing symptoms leads directly to better adherence and better adherence rebuilds lives, rebuilt lives are productive lives.

There are enormous obstacles to treatment but the most common patient experience is HCP and Payer.

Most patients reported that efficacy was the most important factor with relation to treatment and lack thereof was often the reason they stopped a prior treatment. The additional mental strain of using an ineffective treatment was unbearable.

2.4 Impact on Caregivers

Caregivers are the unsung heroes of disease management and desperately underutilized in disease and treatment education. A better informed and educated caregiver will have a positive effect on treatment and outcomes. They most often do not give up, especially parents of children with the disease. The more effective the disease is treated the more productive the patient and the caregiver will be beyond the management of the disease. Less time of work, more productive at work, better personal health.

3. Information about the Drug Being Reviewed

In this section, guidance or examples are provided to help identify the type of information that CDR, CDEC, and participating drug plans will find most helpful in understanding the needs and preferences of the majority of patients. Objective, experiential information that is representative of most in the patient group is preferred. There is no need for patient groups to submit published information, as CDR and CDEC have access to current scientific literature through the manufacturer's submission and a rigorous, independent literature search. However, relevant unpublished studies may be submitted in addition to the completed template.

3.1 Information Gathering

The following information has been gathered by a combination of personal experience and interaction with people living with PsA over the past 25 years. Through one on one interaction and discussion with patients and caregivers, patient forums, inflammatory disease patient conference(s), research and advisory panels, disease treatment and management presentations.

3.2 What Are the Expectations for the New Drug or What Experiences Have Patients Had With the New Drug?

3.2.1 Based on no experience using the drug

- Many patients get excited about the real life experience of other patients who are using an effective treatment. Their anticipation of experiencing the same liberation from oppressive, often lifelong symptoms, cannot be overstated.
- If PsA had a one treatment fits all answer we would already be in good shape. However as plenty of very credible research has shown anti IL12-23 has tremendous efficacy, tolerance and adherence and for many patients that is not the case with anti TNF-a treatments. Of course the opposite is equally true.
- Weighing serious side effects is a case by case individual decision and we do not believe it can be categorized in a general manner?
- Adequate improvement is a subjective quantitative measure. Patients see this as cold and clinical completely detached from their suffering. While anyone without the disease may believe any improvement is a good thing or a step in the right direction the facts lay this mind set as mythical. If "any improvement" was an effective model we would see overwhelming adherence with all treatments.

3.2.2 Based on patients' experiences with the new drug as part of a clinical trial or through a manufacturer's compassionate supply

- Most patients have reported life changing, liberating results.
- All symptoms showed better results because the treatment was preventing them.
- No patient reported what they considered an adverse effect from the treatment.
- Most patients said the most adverse side effect is the disease itself and not treating it effectively.
- The new drug is so easy to use and effective it's odd to see someone get excited about receiving a needle.
- The new treatment is unlike anything most patients have ever experienced. As stated earlier this drug prevents symptoms. Refer back to part 2.2 of this submission. It is having the rock finally removed and the new and strange sensation of pain/symptom free living. All of the patients we spoke to said they are now the most energetic, productive they can ever recall. Many have gone back to work, taken up a sport, quit smoking, no longer need to visit the hospital/clinic, some even

eat healthier and are giving back through patient associations and often in cooperation with their local HCP.

4. Additional Information

Treating PsA effectively changes lives. A person in prison cannot be a productive contributing member of any society. PsA patients liken their disease to being imprisoned but for a crime they did not commit, it is their body (immune system) that has sentenced them to a life of pain and misery.

Once released these are the most grateful, productive, positive people in your community. The snowball effect upon others with the disease is, dare I say, contagious. There is finally a treatment that offers real hope because it has real results. These results are not something that can be manufactured. We as patients have suffered so much for so long and most of us have had a life time of disappointment and torment with lack of efficacy and/or harsh side effects. We'd suggest to come walk in our shoes and let you decide if you want them with or without the rock.

Canadian Skin Patient Alliance

1. General Information

Name of the drug CADTH is reviewing and indication(s) of interest	Ustekinumab (Stelara) for Psoriatic Arthritis
Name of the patient group	Canadian Skin Patient Alliance
Patient group's contact information:	136-2446 Bank St, Suite 383 Ottawa, Ontario K1V 1A8 613-422-4265 www.canadianskin.ca
Permission is granted to post this submission	Yes

1.1 Submitting Organization

The Canadian Skin Patient Alliance is a non-profit, for patients, by-patients organization that serves patients with dermatological conditions in Canada. It focuses on education, support and advocacy for these patients and for its 20+ allied/affiliated disease-specific organizations in Canada. It works with and is supported in this submission by the Canadian Association of Psoriasis Patients (CAPP), a non-profit organization that serves psoriasis and psoriatic arthritis patients in Canada. CAPP represents Canadian patients at the International Federation of Psoriasis Associations internationally.

1.2 Conflict of Interest Declarations

We have the following declaration(s) of conflict of interest in respect of corporate members and joint working, sponsorship, or funding arrangements: Abbvie, Amgen, GlaxoSmithKlein, Leo Pharma, Merck, Novartis, Roche, Valeant. We have not received funding from Janssen, the manufacturer of Stelara for over a year, although we are in discussion on some project-specific funding for 2014.

2. Condition and Current Therapy Information

2.1 Information Gathering

Information for this submission was gathered by several means: Self-addressed, stamped anonymous questionnaires were sent to research physicians who passed them /mailed them to patients who had either undergone clinical trials for Psoriatic Arthritis (PsA) and Stelara or were being treated for their psoriatic arthritis off label with Stelara. Also, we reached out to psoriatic arthritis patients online who had experience with Stelara and they completed the online version of our questionnaire via our Facebook page and the Facebook page of our affiliated group, the Canadian Association of Psoriasis Patients. The total number of usable questionnaires we received was 39 with 69% of responses from women. Then, we contacted 4 patients for one-on-one interviews. Over the years, we also have had contact with hundreds of psoriasis and psoriatic arthritis patients who have attended our disease information sessions. When we refer to information sourced from these sessions and feedback we will so indicate. Also we accessed information from the recently completed Multinational Assessment of

Psoriasis and Psoriatic Arthritis (MAPP) study found at ([Multinational Assessment of Psoriasis and Psoriatic Arthritis Survey](#). Journal of the American Academy of Dermatology. 2014,

[http://www.jaad.org/article/S0190-9622\(14\)00977-3/abstract](http://www.jaad.org/article/S0190-9622(14)00977-3/abstract)). This information was gathered by interviewing by telephone 3426 patients and 781 doctors in 7 countries including Canada.

2.2 Impact of Condition on Patients

Psoriatic Arthritis is characterised by joint pain and stiffness, leading to joint damage caused by systemic inflammation. Patients also usually (but not always) grapple with cracking, bleeding, crusty, painful, very itchy plaques/lesions on their body. All (100%) of the patients we heard from said controlling joint swelling and pain was the most important aspect of the condition with control of psoriasis plaques and the associated symptoms of intense itch, being a close second. In the MAPP study 45% of psoriatic arthritis respondents considered joint pain /swelling to be the most important factor with 18% rating itch to be the worst.

“I had severe breakouts over my body and the arthritis is some days a living hell. My joints were swelling and if you hit them the pain can put you to your knees.”

Day to day life for patients with symptomatic psoriatic arthritis includes for some the inability to go to work, fear of job loss due to days missed due to excessive pain and psoriasis skin outbreaks. One woman reported she “lost her job due to the medication (methotrexate) and the unsightly breakouts”. Another, now 80 years old, hasn’t had a romantic relationship since her diagnosis at age 40 - due to her psoriatic skin and arthritis- she feels shame and embarrassment, and a burden to any potential partner. Her fingers are crooked. In her words –“Who would even ever want to touch me?”

A 50 year old Ontario man reported, “Severe movement limiting arthritis, to the extent that even sleeping is difficult. Job functions severely restricted. Pain an 8 out of 10. Severe itching, flaking and redness, about 35% skin coverage. Pain varies between 7 and 8.5 out of 10.”

A 59-year-old Alberta man wrote, “Severe joint pain sometimes hospitalizes me”

Emotionally this condition takes its toll. Patients struggle with feelings of helplessness and frustration with joints that don’t move without pain, and skin that makes them feel like modern day lepers. More than half of our respondents listed weight gain and depression as key issues related to their psoriatic arthritis. Because they can’t move they gain weight. There is enormous shame, and with it higher rates of depression and suicidality.

“I take anti-depressants. It's bad enough that people stare and whisper about my skin but adds insult to injury when walking with a limp and being overweight due to lack of energy and too much discomfort in hands and feet. It is uncomfortable, too painful to do simple tasks like opening jars or kneading bread, which is depressing for me as these are the things I like to do.”

“Depression, anxiety, alcoholism and weight gain - ALL have made my life MISERABLE and I have really suffered from the pain and mental issues.”

Several patients admitted to isolating themselves from others both socially and at work (if they worked). Having tried a plethora of treatments, as well as OTC medications for joint pain like NSAIDs, some have stomach troubles. Others cited high blood pressure, heart disease and diabetes, tiredness and sweating.

Psoriatic arthritis limits the lives of the patients we heard from by limiting physical movement due to joint pain. In the MAPP survey, where 4 or more joints were affected, such simple things affected

patients like bending down to pick up clothing (26%), dressing themselves (15%), getting in and out of bed or a car (15%) and washing or drying their bodies (12%). From our patients we heard about the inability to open drawers, engage in regular housekeeping activities, go shopping, engage in intimate relations without pain and shame, use a computer keyboard, walk up and down steps and bend down to pick things up. Some had given up activities they loved – dancing, doing sports, gardening, and hiking and several had either lost/had to quit their jobs and go on disability coverage. It affects what clothes they can wear, as many use long pants and long sleeves to cover their psoriasis lesions. Some, like this respondent, simply struggle to cope:

“On bad pain days I can’t physically be touched without crying out in pain. When the pain gets bad, it usually triggers a seizure. If it rains or snows, getting dressed the next day by myself or even getting out of bed unassisted is nearly impossible. So pretty much every aspect of my life has been greatly impacted!”

2.3 Patients’ Experiences With Current Therapy

Prior to trying Stelara, our respondents have tried a wide array of treatments to cover their psoriatic arthritis. Well over 80% of those who responded to us have been on methotrexate, over 40% on cyclosporine and almost 60% have tried either glomimumab, brodalumab, etanercept, adalimumab or infliximab. Other therapies cited for psoriatic arthritis include morphine, Celebrex, Tylenol[®], depo-medrol, oral prednisone, Hydroxychloroquine, leflunomide, sulfasalazine, parenteral/oral gold and minocycline and dovet gel.

Many have tried multiple therapies and multiple approaches to address the symptoms of pain, swelling, inflammation, skin lesions and itch.

With the biologics (glomimumab, etanercept, adalimumab, apremilast or infliximab) reasons given for stopping these treatment include back pain, nausea with injections or that the treatment stopped working after a period of time (from 1 year to 7). This is a widely known issue. Some biologics didn’t seem to address joint pain stiffness and swelling as well as did apremilast and ustekinumab. One Ontario 40 year old responded that the biologic she was using only worked for a few months. Furthermore, she added that she “*felt like I was crawling out of my skin...felt like I was being watched...made me very paranoid.*” Other reasons for stopping a biologic included: inconvenience of frequent needles or having to travel to get infusions.

While over 80% of respondents had been on methotrexate for between 1 and 10+ years, they experienced nausea and liver damage or fear of liver damage, headaches and feelings of illness. They stopped because of the persistence of these symptoms or because the treatment stopped being effective. One respondent had to stop almost immediately as he started to haemorrhage internally.

Both cyclosporine and methotrexate are known to have toxicities that could lead to liver or kidney damage. Patients on these less expensive medications are warned, and hopefully monitored, but will be more likely to feel higher levels of stress and a greater burden of disease because of the risks associated with these medications, even if they get relief from their symptoms.

Hardships in accessing current therapies include the high costs for most of these, and restricted and complex access wherein patients and/or their doctors must repeatedly fill in forms to qualify.

Current biologic therapies require multiple injections, or frequent infusions. For those who travel, who

are on injectable biologics, there is an issue. They must find ways to keep the medication refrigerated, must always check their bags as needles cannot be brought on board in hand luggage. There is also an issue for those on infusion medications who must travel, park, and sit for part of the day while being infused in speciality centres.

According to the MAPP study 85% of patients surveyed reported a need for better therapies.

2.4 Impact on Caregivers

Caregivers of psoriatic arthritis must help patients when swollen painful joints impede their ability to do simple every day activities – from food preparation, to assisting with clothing and washing, mobility in and out of the house. Dealing with the psoriatic skin lesions which bleed and crack and shed flakes all over, means extra vacuuming, frequent bedding changes and much more frequent house cleaning and laundry. In some cases, extra help is needed to cope. “Too many times to mention my mom had to live with myself and my family”

Depression and self -isolation also mean that family members and caregivers live in a dysfunctional setting, where they alone are required to provide the help needed by the patient. One patient noted her family grappled with “*making me get up and out of bed. Being able to get me motivated against the pain was very difficult*”.

3. Information about the Drug Being Reviewed

3.1 Information Gathering

As above, the information for this submission was gathered by several means: Self-addressed, stamped anonymous questionnaires were sent to research physicians who passed them /mailed them to patients who had either undergone clinical trials for psoriatic arthritis and Stelara or were being treated for their psoriatic arthritis off label with Stelara. Also, we reached out to psoriatic arthritis patients online who had experience with Stelara and they completed the online version of our questionnaire via our Facebook page and the Facebook page of our affiliated group, the Canadian Association of Psoriasis Patients. Then, we contacted 4 patients for one-on-one interviews. Over the years, we also have had contact with hundreds of patients who have attended our psoriasis information sessions. When we refer to information sourced from these sessions and feedback we will so indicate.

Also we accessed information from the recently completed Multinational Assessment of Psoriasis and Psoriatic Arthritis (MAPP)* study. This information was gathered by interviewing by telephone 3426 patients and 781 doctors in 7 countries including Canada.

3.2 What Are the Expectations for the New Drug or What Experiences Have Patients Had With the New Drug?

3.2.1 Based on no experience using the drug

While we did not specifically ask this question, we have heard from patients who contacted us or who have come to our info sessions that if the response from Stelara were to be in line with other biologics for psoriatic arthritis then the infrequent dosing holds great appeal – for those who are needle phobic and those who travel. Making this part easy increases the adherence to the protocol and therefore the long-term health outcomes.

Also given that for many patients the effectiveness of a biologic medication for their psoriatic arthritis may only work for a limited time, having more options available increases the number of years of overall treatment and decreases the co-morbidities associated with this condition.

3.2.2 Based on patients' experiences with the new drug as part of a clinical trial or through a manufacturer's compassionate supply

Effect of Stelara on Psoriatic Arthritis: Patients on Stelara for their psoriatic arthritis who responded had experience with Stelara who responded to our questions about effectiveness with the treatment reported good to excellent (one "awesome" written in) effectiveness with respect to joint pain, pretty good to excellent for swelling and for stiffness (another "awesome" for each), with the majority by far (85%, 72% and 75% respectively) indicating positive effectiveness for the arthritis symptoms. For skin clearance, all but one respondent (who said it was "fair") let us know that Stelara had addressed their skin lesions well or very well. It would seem that this drug, according to our patients does very well with solving the skin issues and generally well with the arthritis issues.

It was evident from most responses that the patients who were on Stelara and had transitioned to it from another treatment had done so because the previous treatment had stopped working for them, had adherence issues or may have had a series of other concerns like adverse effects of the other treatments. This is confirmed by patients in our information sessions who express their nervousness about the toxicities associated specifically with methotrexate and cyclosporine.

Adverse effects: When asked about adverse effects, one patient cited lower back pain and another wondered whether a bout of pneumonia had any relationship with the disease. Three decided that the stress they feel due to the high cost of the treatment and worries about workplace issues around group health insurance premiums constituted adverse effects. Most (87%) listed no adverse effects at all.

Ease of Use: In terms of ease of use, all Stelara patients find the quarterly dosing schedule to be very convenient. From our general contact with psoriasis and psoriatic arthritis patients we know that issues with transporting medications for travel and needle phobia are issues that affect patients who are on biologics, where spreading the time between doses to once every three months can make an appreciable difference in adherence and burden of the medication protocol. Based on those parameters, for the patients we've heard from, this medication is easier to use than any other currently available biologics for psoriatic arthritis.

Patient's long-term health and well-being: Given that any given biologic treatment or systemic treatment only seems to work for a patient for a fixed amount of time, access to another option provides choice for physicians and their patients to extend the time that a treatment which addresses the underlying inflammation that causes psoriatic arthritis can be administered.

Also, as the only IL 12/23 biologic, this treatment provides an option currently not available to psoriatic arthritis patients, for whom other treatment options may either, not work as well or have ceased to provide relief.

Some responses from our patients on how Stelara has affected their long-term health and well-being:

- *“I was able to go back to school and graduate”*
- *“Wouldn't be able to work without it”*
- *“May not have been able to work without Stelara treatment”*
- *“Totally changed....able to do everything I used to”*
- *“This drug, to me, is a wonder drug. I spent a lot of years hiding in my clothes and in pain. I think that everyone should be entitled to make an informed choice on whether this drug is for them or not. I can't imagine going back to life the way it was before Stelara.”*
- *“(I'm)...more outgoing... (I've got)... less pain”*
- *“It is a miracle drug and should be promoted and used for everyoneit should be made more affordable for people like myself that do not have benefits.”*

Patients with psoriatic arthritis, a very difficult and disabling disease, need options. Given that this treatment addresses their debilitating arthritis and their profound skin issues, and is administered with an easier dosing schedule than existing options, it is our hope, and the hope of the members of the Canadian Association of Psoriasis Patients with whom we are affiliated, that the CDR gives a LIST recommendation for Stelara (ustekinumab) for Psoriatic Arthritis.