CADTH

Patient Input Template for CADTH Reimbursement Reviews

Name of Drug: pembrolizumab (Keytruda)
Indication: Keytruda is indicated for the treatment of adult patients with early-stage triple-negative breast cancer (TNBC) in combination with chemotherapy as neoadjuvant treatment, and then continued as monotherapy as adjuvant treatment after surgery.
Name of Patient Group: Rethink Breast Cancer
Author of Submission: MJ DeCoteau

1. About Your Patient Group

Describe the purpose of your organization. Include a link to your website.

Rethink Breast Cancer (Rethink) is a Canadian charity known for making positive change. Rethink educates, empowers and advocates for system changes to improve the experience and outcomes of those with breast cancer, focusing on historically underserved groups: people diagnosed at a younger age, those with metastatic breast cancer and people systemically marginalized due to race, income or other factors. We foster spaces to connect, listen, empower and rethink breast cancer, together. Rethink's strategic priorities and organizational direction are guided by the unique, unmet needs identified by breast cancer patients and their families.

Programs and Activities

- Rethink Breast Cancer builds community, bringing patients with various stages of breast cancer together through our private and public social spaces as well as in-person events
- Rethink runs patient retreats and facilitates peer-support
- Rethink creates and runs education forums and conferences
- Rethink creates support and education tools, resources and content
- Rethink funds and supports breast cancer research

You can find out more by visiting:

Rethink Breast Cancer Instagram
Rethink Breast Cancer Website

2. Information Gathering

CADTH is interested in hearing from a wide range of patients and caregivers in this patient input submission. Describe how you gathered the perspectives: for example, by interviews, focus groups, or survey; personal experience; or a combination of these. Where possible, include **when** the data were gathered; if data were gathered **in Canada** or elsewhere; demographics of the respondents; and **how many** patients, caregivers, and individuals with experience with the drug in review contributed insights. We will use this background to better understand the context of the perspectives shared.

For over 20 years, Rethink has been working closely with breast cancer patients in Canada. We learn from and listen to the community to understand their values, priorities and pain points to help drive change and system improvements. Each year, we learn from the patients we serve, survey and collaborate with. We learn from the 40 individuals that we work extremely closely with as key patient advisors; the 100 patients that share their stories on our blog; the 500 patients that participate in our virtual support groups; the 1,600 members of our private peer-support network; the 30,000 people that have joined our Instagram community; and the 150,000 individuals reached each month through the reach of that channel. We listen, learn, engage and have conversations in all these spaces.

Rethink Breast Cancer has several important patient advisory boards and working groups that offer experience-focused insights on issues related to those affected by and concerned about breast cancer, including:

- Metastatic Breast Cancer Advisory Board
- Early Breast Cancer Advisory Board
- Equity, Diversity and Inclusion working group
- Triple Negative Breast Cancer working group (all stages)

For this submission, we have drawn on our general observations and insights gathered through programming and meetings with breast cancer patients as described above. Rethink also conducted in-depth telephone interviews in February 2022 with two patients who are both stage 3 triple negative breast cancer patients who have experience with pembrolizumab and one caregiver to one of the patients interviewed. We also held a focus group with 7 patients from our Triple Negative Breast Cancer Working Group on March 3, 2022.

3. Disease Experience

CADTH involves clinical experts in every review to explain disease progression and treatment goals. Here we are interested in understanding the illness from a patient's perspective. Describe how the disease impacts patients' and caregivers' day-to-day life and quality of life. Are there any aspects of the illness that are more important to control than others?

Most people in the Rethink community are diagnosed at a younger age. When young people get breast cancer it may be more aggressive, which can lead to tougher treatments. In addition, those diagnosed in their 20s, 30s and early 40s face age-specific issues such as fertility or family-planning challenges, diagnosis during pregnancy, childcare, impact on relationships, body image, dating and sexuality, feeling isolated from peers who don't have cancer, career hiatuses, and financial insecurity. The physical and emotional toll that a breast cancer diagnosis and treatment takes on a young person's life is devastating and traumatic. Of all breast cancers diagnosed in Canada, up to 15% will have a subtype known as triple negative breast cancer (TNBC) that is a more aggressive form, often occurring in young people, and has a high risk of recurrence or presentation as Stage IV at diagnosis.

When it comes to TNBC, it's less about controlling an aspect of the illness and more a deep desire for their treatment to work well enough that they make it through that first-year danger zone post active treatment. That they beat the odds despite having one of the most aggressive types of breast cancer, a subtype that is more likely to spread and more likely to reoccur than other types. The subtype that only accounts for 15% of all breast cancer cases but a much higher percentage of breast cancer deaths. They know that their tumor lacks the three most common receptors that most breast cancer therapies target, and therefore there haven't been targeted treatment options available.

"Because I have TNBC, the common breast cancer maintenance meds wouldn't do anything, so I'm just being told to go live my life and try and put cancer on a shelf for now – although that's easier said than done. Anxiety still makes it hard to fall asleep. Fear jolts me up in the middle of the night as I think about what the next few years may hold." – Alison

4. Experiences With Currently Available Treatments

CADTH examines the clinical benefit and cost-effectiveness of new drugs compared with currently available treatments. We can use this information to evaluate how well the drug under review might address gaps if current therapies fall short for patients and caregivers.

Describe how well patients and caregivers are managing their illnesses with currently available treatments (please specify treatments). Consider benefits seen, and side effects experienced and their management. Also consider any difficulties accessing treatment (cost, travel to clinic, time off work) and receiving treatment (swallowing pills, infusion lines).

Triple negative breast cancer is usually treated with a combination of surgery, radiation therapy, and chemotherapy. Chemotherapy is often given before surgery. The patient learns stage and

grade and begins talking through their treatment plan with their oncologist. In Canada, right now, patients are immediately tested for BRCA if diagnosed under 35 or if you're TNBC age 60 or under.

As mentioned, it can be upsetting for patients to find out that they've been diagnosed with a type of breast cancer that is more aggressive than other types. As they join patient communities online, like ours, they begin learning about the experiences of others with breast cancer, start learning about subtypes, share treatment plans, read blog posts about targeted treatments for other subtypes and can feel that their particular type of breast cancer doesn't have the same transformative targeted treatments as those who benefit from, say, Herceptin. If they are then also BRCA, that adds a layer of concern for family while also going through their own treatment. This can leave them feeling isolated from the broader breast cancer community, compounding the cancer-related anxiety they already feel.

5. Improved Outcomes

CADTH is interested in patients' views on what outcomes we should consider when evaluating new therapies. What improvements would patients and caregivers like to see in a new treatment that is not achieved in currently available treatments? How might daily life and quality of life for patients, caregivers, and families be different if the new treatment provided those desired improvements? What trade-offs do patients, families, and caregivers consider when choosing therapy?

Each individual patient brings their own personal values and goals to their discussions with their oncology team. Communication and trust in their team is essential. In our experience working closely with many young triple negative breast cancer patients, we find most, especially those with Stage 3 TNBC, are willing to trade toxicity for confidence in knowing they've "thrown everything they could" at the cancer. In other words, they will choose to endure additional side-effects and impacts on quality of life from the toxicity of a stronger therapy to ensure they are doing everything they can to treat what they know is an aggressive form of breast cancer.

6. Experience With Drug Under Review

CADTH will carefully review the relevant scientific literature and clinical studies. We would like to hear from patients about their individual experiences with the new drug. This can help reviewers better understand how the drug under review meets the needs and preferences of patients, caregivers, and families.

How did patients have access to the drug under review (for example, clinical trials, private insurance)? Compared to any previous therapies patients have used, what were the benefits experienced? What were the disadvantages? How did the benefits and disadvantages impact the lives of patients, caregivers, and families? Consider side effects and if they were tolerated or how they were managed. Was the drug easier to use than previous therapies? If so, how? Are there subgroups of patients within this disease state for whom this drug is particularly helpful? In what ways? If applicable, please provide the sequencing of therapies that patients would have used prior to and after in relation to the new drug under review. Please also include a summary statement of the key values that are important to patients and caregivers with respect to the drug under review.

Rethink conducted phone interviews with two patients with stage 3 triple negative breast cancer who have experience with pembrolizumab (Keytruda). We also interviewed one of the caregivers to one of the patients we interviewed.

Patient 1 interview

"I was diagnosed in 2019 and I was pregnant at that time. I joined a lot of cancer communities on Facebook, all over the world, and this drug was already available in the US for clinical trials, so I had heard of it and a lot of breast cancer patients had already been on it, so I've been following Keytruda for a while. When I spoke to my oncologist about it, it wasn't available to me. There was no clinical trial at that time. So, I went through my chemotherapy and I gave birth, and then I had more chemo after that. In the beginning of 2020, I finished my chemo and then I had my double mastectomy surgery, removed my breasts, then I went through 25 radiation treatments and then I went on chemo pills. When I finished all my treatment and I was on my chemo pills, that's when my oncologist said there's going to be a few clinical trials coming out soon for Keytruda for TNBC, which is my cancer. She referred me to a doctor where the clinical trial was. I started the trial December of 2020, a clinical trial for TNBC early-stage. I was selected to receive the drug and started it on December 24, 2020.

"I had a lot of the side effects from Keytruda, my oncologist told me some of her patients don't have any side effects, majority of them have thyroid issues, and I had hives and skin conditions and thyroid issues. But I would say it is minor, any issues that I've had so far, I was never hospitalized. To be honest, if I were to recommend this drug for patients who are TNBC like me, I would say go ahead and do it and just tolerate whatever side effects you get because this drug is so helpful in decreasing recurrence. And TNBC has the highest recurrence rate. I've just lost a family member from TNBC a couple weeks ago. She was diagnosed a year after me, but she couldn't get into the clinical trial I was in because at that time I think it had already spread. I knew about this drug when I was first diagnosed and I knew I wanted to be on this drug, just because I've heard so many good things about it. There are side effects, yes, but these are

tolerable side effects. There are treatments for these side effects, it's not something that is bad that you'd be hospitalized for.

"It was very important for me to get access to Keytruda. I'd recommend people to either get on a clinical trial or try to find a way to get access to this drug because to me I feel like, obviously this is new for TNBC, but it's an extra treatment for this disease. TNBC has just a standard treatment because there's not enough research and drugs to treat it like the other types of breast cancer. Ours is very standard, it's just chemo and radiation, pills, that's about it. There's really nothing on the long-term. With Keytruda, if they're able to treat or help with the recurrence for TNBC, I'd recommend it 100% to get it. With TNBC, my oncologist advised me to go maximum with whatever treatment is out there. And that's what I did. I didn't have to get both of my breasts taken out, but I did because of the recurrence rate. I don't want the recurrence. I would totally recommend Keytruda, and if we can get access to the drug, it would be great. When I was going through chemo and I knew about this drug, I was really sad and disappointed that it wasn't available for us here. It was really sad. I thought, ok if I'm done my chemo, I'm done my chemo pills, my radiation, what do I do next? What is going to happen? When the opportunity came up for me to do the clinical trial, I was so excited for it. It's sad that not everyone could have gotten into this trial. I feel like Canada is so behind in all the drugs. In the US, this is already given to patients during their chemo."

Patient 1's caregiver and husband

"It was a sigh of relief to know she was getting the treatment, even though the side effects were somewhat of a challenge.

"Whatever benefitted my wife and made her feel more secure throughout this journey was what was important. It's the responsibility of the caregiver to ensure the person receiving treatment is as comfortable, confident and reassured with whatever decision they make as possible. For what this treatment is, it's been nothing, but a benefit."

Patient 2 Interview:

"I've been very fortunate and very grateful that the side effects from my treatment so far have been pretty mild. I do have side effects, but they've been manageable using over-the-counter drugs or prescription medication. I feel pretty good overall. The outcome from what my

oncologist has expressed that after my first cycle of treatment there was a noticeable change in the size of the tumour. At the time of my CT scan, I started with a 2.8cm tumour and at the end of cycle one it had gone down to about 1-1.5cm. My oncologist was floored, we were both so excited. To my understanding, my oncologist didn't expect to see that kind of result so quickly. She indicated she believes it is because of the Keytruda. The only cancer symptom I had was finding the lump and after the biopsy it just felt uncomfortable on that side. My oncologist believes that Keytruda helped shrink my tumour down, which relieved my pain and discomfort. It wasn't putting pressure on me anymore.

"At first, I was terrified because Keytruda is newer and it deals with the immune system and there are risks associated with that, and I personally have a lot of allergies and I'm very sensitive to medication, so of course, my concerns with it were, "Can my body tolerate this? Am I going to have a reaction? How will it affect me in the long run?" That said, I'm so glad that it was an option for me, because I know in one of my online support groups, there are women who hear about it and don't have that option and they want to know why. They want to be able to make the best decision for their health long-term and to get through this especially with the triple negative. Even though it was a little scary for me at first, I'm so glad it was an option because I feel like it gives me a little more peace of mind and a little more confidence going into this, and obviously I've had positive results so far. I feel like if it doesn't need to be a mandatory thing, women should at least have the option to explore it and be able to see if that's going to help them get through this.

"I was very fearful about it, but I've had a good experience and I really feel for the people who don't have that option to explore Keytruda in their treatment plan. I just think that it could really be a game-changer in terms of triple negative and why not let people have that option to be able to have that in their toolbox while they're fighting this, you know? As of right now I have really positive things to say about it and I hope access to it can change for people who don't have that access. I really think it's important."

7. Companion Diagnostic Test

Nothing to report on this topic.

8. Anything Else?

Is there anything else specifically related to this drug review that CADTH reviewers or the expert committee should know?

We'd like to emphasize that the triple negative breast cancer community has been underserved for a very long time. At the recent meeting with our TNBC Working Group, what was most striking was them expressing a strong sense of isolation from the rest of the breast cancer community. This intense isolation comes from being diagnosed with a breast cancer that Is:

- less common
- more aggressive
- has a very different treatment path than other subtypes
- has fewer treatments than other forms of breast cancer, despite being more aggressive

Many in the TNBC community self-identify as "TNBC Thrivers" to feel empowered - they are determined to "thrive" despite the odds. We've noticed that as patients with TNBC are finding each other online and forming TNBC Thriver sub-communities, the sense of community and belonging is empowering; yet; by being in community with other "TNBC Thrivers" they are shaken and re-traumatized by the deaths of their young fellow "Thrivers." We see them posting "Their story is not my story" as a way to cope and a way to feel hope that they won't be next. The TNBC community wants more research done on their subtype and they want more effective tools in their toolbox that will help improve their chances against this challenging disease that's turned their life-plans upside-down.

As we ponder "anything else," we think about the TNBC Thrivers we know—both early TNBC and those who are now metastatic TNBC—and their loved ones. We know their cancer stories and we know, at least partly, their personal life stories too. We see their family pictures on Facebook and Instagram. We know what they have at stake. We know the feeling we get when we see their updates about being 2 years cancer free or 5 years cancer free. And we know how we feel if they've become metastatic and live scan to scan posting about their stability, or, their heartbreak over progression. And, we think of the TNBC Thrivers we've lost. Too, too many over the years. Their families will never be the same. Keytruda as an option for those with stage 3 TNBC can give patients a tangible way to help ensure that indeed "Their story won't be my story."

Appendix: Patient Group Conflict of Interest Declaration

To maintain the objectivity and credibility of the CADTH reimbursement review process, all participants in the drug review processes must disclose any real, potential, or perceived conflicts of interest. This Patient Group Conflict of Interest Declaration is required for participation. Declarations made do not negate or preclude the use of the patient group input. CADTH may contact your group with further questions, as needed.

1. Did you receive help from outside your patient group to complete this submission? If yes, please detail the help and who provided it.

   No.

2. Did you receive help from outside your patient group to collect or analyze data used in this submission? If yes, please detail the help and who provided it.

   No.

3. List any companies or organizations that have provided your group with financial payment over the past 2 years AND who may have direct or indirect interest in the drug under review.

Table 1: Financial Disclosures

Check Appropriate Dollar Range With an X. Add additional rows if necessary.

Company	$0 to 5,000	$5,001 to 10,000	$10,001 to 50,000	In Excess of $50,000
<Enter Name Here>				
Merck			X	

I hereby certify that I have the authority to disclose all relevant information with respect to any matter involving this patient group with a company, organization, or entity that may place this patient group in a real, potential, or perceived conflict of interest situation.

Name: MJ DeCoteau
Position: Founder and Executive Director
Patient Group: Rethink Breast Cancer
Date: March 11, 2022