BlueCross BlueShield of Kansas City

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# Nplate (romiplostim)

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**Origination:** 07/2013
**Last Review:** 11/2014
**Next Review:** 11/2015

## Policy

BCBSKC will provide coverage for Nplate (romiplostim) when it is determined to be medically necessary because the following criteria are met.

## When Policy Topic is covered:

The use of Nplate may be considered **medically necessary** for the following:

**Treatment of thrombocytopenia in patients with chronic immune (idiopathic) thrombocytopenia purpura (ITP).** Approve Nplate if the patient meets the following criteria (a, b, c and d):

a) The agent is prescribed by, or in consultation with, a hematologist; AND
b) The patient is ≥ 18 years of age; AND
c) The patient meets ONE of the following conditions (i, ii, or iii):
   i. The patient has tried corticosteroids; OR
   ii. The patient has tried IVIG; OR
   iii. The patient has undergone splenectomy; AND
d) The patient is not using Nplate in combination with Promacta.

Nplate is indicated for the treatment of thrombocytopenia in patients with chronic ITP who have had an insufficient response to corticosteroids, immunoglobulins, or splenectomy.[1] The safety and efficacy of Nplate in pediatric patients (aged < 18 years) have not been established. The pivotal trials with Nplate involved patients who had tried at least one primary ITP therapy (e.g., corticosteroids, immunoglobulins); approximately 50% of patients had undergone splenectomy.[1] Evidence-based practice guidelines for immune thrombocytopenia from ASH (published in 2011), recommend corticosteroids or IVIG as first-line treatment for adults; splenectomy is recommended for patients who have failed corticosteroid therapy. Thrombopoietin receptor agonists are recommended for adults at risk of bleeding who relapse following splenectomy or who have a contraindication to splenectomy and who have failed at least one other therapy. At this time recommendations for use of thrombopoietin receptor agonists in children with ITP cannot be made; clinical trials have been initiated.[9] Trials with Nplate in children are evolving.[11-13]

## When Policy Topic is not covered:

The use of Nplate is considered **investigational** for all other indications including:

**Thrombocytopenia in myelodysplastic syndrome (MDS).** Current recommendations from the National Comprehensive Cancer Network (NCCN) (version 1.2012) do not mention the use of thrombopoietin receptor agonists (e.g., Nplate) in the management of thrombocytopenia in MDS.[5] Data that describe the use of Nplate for thrombocytopenia associated with MDS are evolving.[6-8]

## Considerations

Nplate requires prior authorization through the Clinical Pharmacy Department.

This Blue Cross and Blue Shield of Kansas City policy Statement was developed using available resources such as, but not limited to: Hayes Medical Technology Directory, Food and Drug Administration (FDA) approvals, Facts and Comparisons, National specialty guidelines, Local medical policies of other health plans, Medicare (CMS), Local providers.

## Description of Procedure or Service

Nplate for subcutaneous (SC) injection, a thrombopoietin receptor agonist, is indicated for the treatment of thrombocytopenia in patients with chronic immune (idiopathic) thrombocytopenia purpura (ITP) who have had an insufficient response to corticosteroids, immunoglobulins, or splenectomy.[1] Nplate is not indicated for the treatment of thrombocytopenia due to myelodysplastic syndrome (MDS) or any cause of thrombocytopenia other than chronic ITP. Nplate should only be utilized in patients with ITP whose degree of thrombocytopenia and clinical condition increase the risk for bleeding; it should not be used in an attempt to normalize platelet counts. The initial Nplate dose is 1 mcg/kg once weekly as a SC injection. The dose should be adjusted weekly by increments of 1 mcg/kg to achieve and maintain a platelet count ≥ 50 X $10^9$/L as needed to reduce the bleeding risk. Do not exceed a maximum weekly dose of 10 mcg/kg. Discontinue Nplate if the platelet count does not increase after 4 weeks at the maximum dose. Nplate contains a warning that in clinical trials with Nplate progression from MDS to acute myelogneous leukemia has been observed

## Rationale

The safety and efficacy of Nplate were evaluated in two double-blind, placebo-controlled trials.[1-2] Patients with chronic ITP who had completed at least one prior treatment and had a platelet count of ≤ 30 x $10^9$/L prior to study entry were randomized (2:1) to 24 weeks of Nplate 1 mcg/kg SC once weekly or placebo. The dosage of Nplate could be adjusted to maintain platelet counts of 50 x $10^9$/L to 200 x $10^9$/L. One study assessed patients who had not undergone a splenectomy (n = 62) and the other evaluated those who had undergone a splenectomy (n = 63). Among nonsplenectomized patients, more given Nplate had a durable platelet response (61%) compared with placebo (5%). Similarly, in splenectomized patients, 38% given Nplate had a durable platelet response compared with none (0%) in the placebo group.[1-2] Open-label extension data involving use for up to 3 years demonstrated Nplate to be an effective and well-tolerated agent for maintenance treatment in those with ITP.[3] A controlled, multicenter, open-label, 52-week study[4] randomized 234 patients with ITP who did not have a splenectomy to receive standard of care (n = 77) or weekly Nplate SC (n = 157). The main endpoints were the incidence of splenectomy or treatment failure (e.g., a platelet count of 20 x $10^9$/L or lower for 4 consecutive weeks at the highest recommended dose, a major bleeding event, or requirement for a change in therapy [including splenectomy] due to an adverse event or bleeding symptoms). Other secondary outcomes were assessed. Patients given Nplate had a lower incidence of treatment failure (18 of 157 patients given Nplate [11%]) compared with those receiving the standard of care (23 of 77 patients [30%]) ($P < 0.001$). Fewer patients given Nplate underwent splenectomy (14 of 157 patients [9%]) compared with those in the standard-of-care group (28 of 77 patients [36%]) ($P < 0.001$). The rate of platelet response for patients given Nplate was 2.3 times higher compared with the standard-of-care group ($P < 0.001$). Patients given Nplate also experienced a lower rate of bleeding events, fewer blood transfusions, and a greater quality of life improvement compared with the group receiving the standard of care.

### Guidelines

In 2011 the American Society of Hematology (ASH) published an evidence-based practice guideline for immune thrombocytopenia.[9] First-line treatment for adults include corticosteroids or intravenous immunoglobulin (IVIG). For patients who are unresponsive or relapse after initial corticosteroid therapy splenectomy is recommended. Thrombopoietin receptor agonists are recommended for patients with a bleeding risk who relapse following splenectomy, or have a contraindication to splenectomy and who have failed at least one other therapy. The guidelines also suggest that thrombopoietin receptor agonists be considered for those at risk of bleeding who have failed one line of therapy, such as corticosteroids or IVIG, and who have not undergone splenectomy. Regarding children, the guidelines state that studies of thrombopoetin receptor agonists in children and adolescents have been initiated. No recommendation for the use of such agents can be formed at this

time.[9] In 2010, an international consensus report was published regarding the management of primary immune thrombocytopenia.[10] Thrombopoietin receptor agonists are recommended as a second-line therapy after corticosteroids or IVIG

## References:


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Other References Utilized


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## Billing Coding/Physician Documentation Information

N/A Nplate is considered a pharmacy benefit.

## Additional Policy Key Words

Policy Number**:** 5.02.515

## Related Topics

N/A

## Policy Implementation/Update Information

07/2013 New Policy titled Nplate (romiplostim)
11/2014 No policy changes made