

(70181)

<b>Medical Benefit</b>		<b>Effective Date:</b> 05/01/06	<b>Next Review Date:</b> 03/15
<b>Preauthorization</b>	No	<b>Review Dates:</b> 03/07, 05/08, 05/09, 03/10, 03/11, 03/12, 03/13, 03/14	

*The following Protocol contains medical necessity criteria that apply for this service. It is applicable to Medicare Advantage products unless separate Medicare Advantage criteria are indicated. If the criteria are not met, reimbursement will be denied and the patient cannot be billed. **Preauthorization is not required but is recommended if, despite this Protocol position, you feel this service is medically necessary.** Please note that payment for covered services is subject to eligibility and the limitations noted in the patient's contract at the time the services are rendered.*

### Description

Nerve grafting to replace cavernous nerves resected at the time of radical prostatectomy is proposed to reduce the risk of erectile dysfunction after this surgery. The sural nerve is most commonly used in grafting.

#### Background

Erectile dysfunction is a common problem after radical prostatectomy. In particular, spontaneous erections are usually absent in patients whose extent of prostate cancer requires bilateral resection of the neurovascular bundles as part of the radical prostatectomy procedure. A variety of noninvasive treatments are available, including vacuum constriction devices and intracavernosal injection therapy. However, spontaneous erectile activity is preferred by patients. Studies have reported results from bilateral nerve grafts; there are also reports of unilateral grafts when only one neurovascular bundle has been resected.

There has been interest in sural nerve grafting to replace cavernous nerves resected at the time of prostatectomy. The sural nerve is considered expendable and has been extensively used in other nerve grafting procedures, such as brachial plexus and peripheral nerve injuries. As applied to prostatectomy, a portion of the sural nerve is harvested from one leg and then anastomosed to the divided ends of the cavernous nerve. Reports are also being published using other nerves, such as the genitofemoral nerve.

### Policy (Formerly Corporate Medical Guideline)

Unilateral or bilateral nerve graft is considered **investigational** in patients who have undergone resection of one or both neurovascular bundles as part of a radical prostatectomy.

---

Services that are the subject of a clinical trial do not meet our Technology Assessment Protocol criteria and are considered investigational. *For explanation of experimental and investigational, please refer to the Technology Assessment Protocol.*

It is expected that only appropriate and medically necessary services will be rendered. We reserve the right to conduct prepayment and postpayment reviews to assess the medical appropriateness of the above-referenced procedures. **Some of this Protocol may not pertain to the patients you provide care to, as it may relate to products that are not available in your geographic area.**

## References

We are not responsible for the continuing viability of web site addresses that may be listed in any references below.

1. Davis JW, Chang DW, Chevray P et al. Randomized phase II trial evaluation of erectile function after attempted unilateral cavernous nerve-sparing retropubic radical prostatectomy with versus without unilateral sural nerve grafting for clinically localized prostate cancer. *Eur Urol* 2009; 55(5):1135-43.
2. Namiki S, Saito S, Nakagawa H et al. Impact of unilateral sural nerve graft on recovery of potency and continence following radical prostatectomy: 3-year longitudinal study. *J Urol* 2007; 178(1):212-6; discussion 16.
3. Rabbani F, Ramasamy R, Patel MI et al. Predictors of recovery of erectile function after unilateral cavernous nerve graft reconstruction at radical retropubic prostatectomy. *J Sex Med* 2010; 7(1 Pt 1):166-81.
4. Secin FP, Koppie TM, Scardino PT et al. Bilateral cavernous nerve interposition grafting during radical retropubic prostatectomy: Memorial Sloan-Kettering Cancer Center experience. *J Urol* 2007; 177(2):664-8.
5. Sponsored by Kantonsspital Winterthur KSW (Switzerland). Nerve Grafting With an Allograft During Radical Prostatectomy - Extended Follow-up in a Prospective Randomized Trial (NCT01770340). Available online at: [www.clinicaltrials.gov](http://www.clinicaltrials.gov). Last accessed November, 2013.
6. National Comprehensive Cancer Network. Prostate Cancer. Clinical practice guidelines in oncology, V4.2013. Available online at: [http://www.nccn.org/professionals/physician\\_gls/PDF/prostate.pdf](http://www.nccn.org/professionals/physician_gls/PDF/prostate.pdf). Last accessed November, 2013.