Transition of Dynamic Pediatric Stimulation Testing from Endocrine Clinic to the Outpatient Infusion Center

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Purpose

To identify best practices and implications for transitioning the performance of stimulation tests from an ambulatory clinic environment to an outpatient infusion center.
Background

Stimulation Testing

- Useful in diagnosis of growth hormone deficiency, adrenal insufficiency, congenital adrenal hyperplasia, precocious puberty, and delayed puberty

- Introduction of provocative or suppressive agent and monitoring of hormonal response
Background

Endocrine Clinic

- Limited number of stimulation tests performed on designated days
- Space limited to performance of only 2 consecutive stimulation tests at a time
- Up to 6 months between time of appointment request and completion of stimulation tests
- Clinic nurses assist in clinic, perform patient education and manage patient care by phone
Background
Infusion Center

- Available to perform stimulation testing any day of week (Mon – Fri)

- Extended hours of operation from 9 AM to 7 PM

- Ability to perform multiple stimulation tests daily/ consecutively

- Sufficient staffing to ensure safe and efficient performance of stimulation testing

- Expertise in IV access/ venipuncture and injectable medications
Transition Process

Leadership Collaboration

• Assessment of current process
• Strategic planning for transition

Education

• Infusion Center Staff education
• Creation of Patient Education: “Stimulation Test Fact Sheets”

Procedure Review

• Review of Endocrine Stimulation Test procedures/protocols
• Creation of physician order sets for Infusion Center
Transition Process

Scheduling Process
• Creation of efficient scheduling process in Infusion Center
• Transition of appointments from Endocrine Clinic to Infusion Center
• 6 month appointment backlog addressed

Communication
• Patient notification of stimulation test transition and plan of care
• Development of physician notification system upon test completion

Financial Aspects
• Infusion Center Staff education for proper billing and coding to ensure fiscal responsibility
Outcomes
Impact for Endocrine Clinic

- Improvement in clinic staffing ratio
- Staff able to focus on care of clinic patients
- Addition of two patient exam rooms in lieu of single stimulation testing room
- 6 month appointment backlog eliminated in less than two months
- Decrease in clinic 3rd next available appointment
  - Year prior to transition = 54 days
  - Year of transition = 38 days (transitioned mid-year)
  - First full year after transition = 17 days
Endocrine Clinic
Days to 3rd next available appointment

- Days to 3rd next available appointment
- Linear (Days to 3rd next available appointment)

Year 1
- Transition year (mid-year)
  - Year prior to transition: 54 days
  - Transition year (mid-year): 38 days

Year 2
- 1st full year after transition: 17 days
Outcomes

Impact for Patients

- Appointment availability significantly increased
- Stimulation test results available earlier
- Necessary treatment started earlier
- Testing completed in a safe, efficient, and friendly environment
- Anecdotal evidence of increased patient satisfaction
Outcomes

Impact for Infusion Center

- Increased visits / chair utilization
- New knowledge and skills for staff
- Creation of specialized area for diagnostic stimulation testing
- Standardization of stimulation testing procedure and documentation
Infusion Center

Stimulation Tests visits

- Chair utilization < 70%
- Chair utilization > 90%

- 2007: 156
- 2008: 378
- 2009: 441
- 2010: 471
- 2011: 567
- 2012: 537
- 2013: 723
- 2014: 810
Implications

Transitioning patients from endocrine clinic to Infusion Center proved to have increased patient satisfaction and efficacy

- Reduces variances in testing process (Standardizes test performance)
- Fosters relationship between two separate clinics & facilitates transition of other patient care services from clinics to the Infusion Center to ultimately provide better service to our patients
- Improves timeliness of result delivery, patient diagnosis, & treatment
- Complies with practice standards-Infusion Nurses Society S78(B): “Sampling of blood through short peripheral catheters has been found to be reliable for many routine blood tests, and may be considered for pediatric patients or those who require multiple laboratory tests.”
References


Special Recognition

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