Question: What would be the challenges at your center in developing a new role involving the nurse practitioner?

Background

The Illinois newborn screening panel has expanded to include over 50 disorders and currently includes many inborn errors of metabolism disorders. The Division of Genetics, Birth Defects and Metabolism is a designated referral center for patients with abnormal metabolic newborn screen. The metabolic diseases include amino acid, urea cycle, fatty acid oxidation, organic acid disorders and lysosomal storage diseases. Historically, the geneticist and genetic counselor on call would coordinate care for the referral which would include clinic visit, physical exam, family health history along with follow up and interpretation of lab results. These patients could potentially have a critical disease and should be seen within 24 hours of an abnormal result.

There are many aspects to the advance practice nurse (APN) role in genetics, including clinical research trials, assessing abnormal newborn screens, coordination of Enzyme Replacement Therapies and clinic visits. With one APN in Genetics and one open research APN positon, additional staff was needed to cover all APN workloads.

Details of innovation

The goal of this project was to create a cross coverage model to promote teamwork and increase collaboration in responding to abnormal newborn screens. The first step was to evaluate the role of the APN within the Division of Genetics. The next step was to assess how to expand the APN responsibilities in order to determine how an APN would function as the lead for the initial evaluation of patients with abnormal newborn screens in addition to managing other responsibilities in the Division. The role of the APN in Genetics was examined through literature review and through discussions with peers at national conferences, such as International Society for Nurses in Genetics (ISONG).

The innovative concept was to have 3 APNs cross trained in all roles and functions in the Division of Genetics. These roles include evaluating abnormal newborn screens, conducting clinical research protocols and coordinating care for patients. Additional funding for these new positions was sought out and obtained. Job descriptions were developed for two additional positions to incorporate the teamwork and cross coverage aspect. The recruitment and hiring process was completed. Training was provided by the geneticists and genetic counselors.

Evaluation of Change

The APNs provide sole coverage for the abnormal newborn screen patients and if needed, collaborate with the geneticist. All 3 APNs are able to analyze the initial referral, coordinate the visit at the clinic, complete the physical exam, order follow-up diagnostic testing and interpret the results. The APN effectively provides emotional support to parents of a child with an abnormal screening result. Parents are educated on the condition as well as signs and symptoms in order to monitor the infant at home until diagnostic testing is complete. The APN serves as an educator to primary care providers in regards to the follow-up plan for the abnormal newborn screen.

The cross-coverage model for the 3 APNs has led to increased teamwork and productivity. This model effectively eliminates the need for several healthcare providers to be involved and allows the patient to be seen in a timelier manner. The cross-training of multiple APNs allows patients to be seen within 24 hours of results and promotes consistent care.

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The Nurse Practitioner As Primary Clinician For The Initial Genetic Evaluation Of An Abnormal Newborn Screen And A Cross Coverage Approach Within One Division

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BACKGROUND

- The Illinois newborn screening panel has expanded to include over 50 disorders and currently includes many inborn errors of metabolism disorders.
- The Division of Genetics, Birth Defects and Metabolism is a designated referral center for patients with abnormal metabolic newborn screen.
- Historically, the geneticist and genetic counselor on call would coordinate care for the referral.
- Possible critical disease and should be seen within 24 hours of an abnormal result.
- With one APN in Genetics and one open research APN position, additional staff was needed to cover all APN workloads.

MODEL DEVELOPMENT

- First step - evaluate the role of the APN within the Division of Genetics.
- Next step - assess how to expand the APN responsibilities in order to determine how an APN would function as the lead for the initial evaluation of patients with abnormal newborn screens in addition to managing other responsibilities in the Division.
- The innovative concept was to have 3 APNs cross trained in all roles and functions in the Division of Genetics. These roles include:
  - evaluating abnormal newborn screens
  - conducting clinical research protocols
  - clinic visits
  - coordination of Enzyme Replacement Therapies
- Other Steps:
  - additional funding obtained
  - job descriptions developed for two additional positions to incorporate the teamwork and cross coverage aspect
  - recruitment and hiring
  - training and education provided by the geneticists and genetic counselors

RESULTS

- With this cross coverage model, the APNs provide sole coverage for the abnormal newborn screen patients:
  - analyze the initial referral
  - coordinate the clinic visit
  - complete the physical exam
  - order follow-up diagnostic testing
  - parent education and emotional support
  - interpret the results
  - communicate with pediatrician
  - collaborate with the geneticist if needed
- The cross-coverage model for the 3 APNs has led to increased teamwork and productivity:
  - elimination of the need for several healthcare providers to be involved
  - improved flexibility in scheduling – same day visits are available
- Greatly improved collaboration within the team

GOAL

- Create a cross coverage model to promote teamwork and increase collaboration in responding to abnormal newborn screens.