

Creation of Comprehensive Pediatric Nephrology Didactic Curriculum

Purpose: Create a comprehensive 2-year rotating didactic curriculum for pediatric nephrology fellows centered on adult learning principles with goal to adequately prepare fellows to pass boards and have core knowledge necessary to become competent pediatric nephrologists on completion of fellowship.

Objectives: Utilize the Kern instructional model to develop the curriculum with interim evaluation and feedback approximately one year into the two-year recurring curriculum.

Methods: Perform general needs assessment and problem identification. Conducted a qualitative targeted needs assessment of faculty and current fellows. Develop and implement the curriculum based on topic and learning objectives created from board specifications for pediatric nephrology. Conduct interim assessment and evaluation of the curriculum with review of each fellow's milestone evaluations and the survey results of each fellow on the curriculum.

Results: Initial gap analysis based on audit of current curriculum revealed that current book chapter-based curriculum was not reliably addressing all key topics as per board specifications. Qualitative needs assessment of current fellows and faculty revealed that fellows perceived a lack of structure, reviewing book chapters was not conducive to effective learning for 50% of the current fellows, faculty described a lack of investment in current book chapter focused curriculum, and several faculty described concern over gaps in curriculum and lack of structure. Content topics and objectives were then created through meticulous review of board specifications and review of other available pediatric nephrology curriculums. First year of recurring curriculum was then implemented. Interim assessment included review of each fellow's milestone evaluations on core clinical knowledge with all fellows progressing from the start of the academic year to mid-point in academic year with no fellows deficient from expected milestone. Survey results indicated that 100% of fellows (n=4) rated the learning objectives for each topic as very relevant or extremely relevant with an average of 4.5 on a 5-point Likert scale. Fellows rated both the overall usefulness of the course and overall relevance to clinical practice at an average of 3.75 on a 5-point Likert scale (5= extremely useful or extremely relevant). Only 25% of fellows wanted more pre and post resources. All fellows want board-style questions implemented with each topic. Fellows also indicated desire to learn in more interactive ways such as case based or game-based sessions. Described strengths of the curriculum included comments on improved structure, good coverage of key content areas with content experts leading the discussions, incorporation of board style questions and board style review, as well as incorporation of journal club within the curriculum that focuses on fundamental studies. Weaknesses included that timing can be difficult with a weekly lecture and to consider half days of education less frequently.

Conclusion: Results of interim assessment indicate successful initial curriculum implementation. Areas of future direction include having relevant questions interwoven into each topic and a continued focus on increasing adult learning principles within the topics covered.