

ESPN BOARD EXAMINATION IN PAEDIATRIC NEPHROLOGY STANDARD OPERATION PROCEDURES (SOP)

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I. GENERAL INFORMATION

The European Society for Paediatric Nephrology (ESPN) aims to promote research knowledge in Paediatric Nephrology through teaching, scientific meetings and other educational activities for the benefit of children with kidney disease. Founded in 1967, ESPN, is the professional association for education, research and delivery of care for children with kidney diseases within Europe.

To harmonize the quality of care across Europe, ESPN established the requirements for training in Paediatric Nephrology summarized in a Syllabus (<https://www.espn-online.org/wp-content/uploads/2020/02/Pediatric-Nephrology-ETR-approved-Dec-2019.pdf>) that has been updated and approved by the ESPN council and by the European Academy of Paediatrics in 2019.

Aiming to harmonize the educational standard of physicians who undergo training in Paediatric Nephrology according to the Training Syllabus and to facilitate mobility of medical practitioners throughout the European Union (EU), ESPN established the ESPN Board Examination in Paediatric Nephrology since 2020, as a standard of knowledge at the European level.

The purpose of ESPN Board Examination

ESPN Board Examination aims to evaluate knowledge, problem solving and judgement across a broad spectrum of Paediatric Nephrology according to by ESPN defined standards required to practice Paediatric Nephrology at the tertiary care level in Europe. The ESPN Board Examination will enable benchmarking of candidates against their European colleagues in other EU countries.

Status of ESPN Board Examination

ESPN Board Certificate is a ***quality mark*** unless otherwise recognized by a national competent authority (NCA). Unless full NCA recognition has been obtained, the European postgraduate medical assessments will be considered complementary to the national examination.

Passing a European postgraduate medical assessment will **NOT** imply a license to practice. It is only the NCA that will be able to provide such a license. Nevertheless, where full NCA recognition of a qualification applies, the European postgraduate medical assessments may provide a means for the NCA to determine eligibility for a license to practice.

The format of examination is on-line answering multiple-choice clinical case-based questions (MCQ) with 1 correct answer out of 5 options.

MCQ cover all aspects of Paediatric Nephrology according to a pre-defined Blueprint, with different aspects of each topic such as disease mechanism, diagnosis, management, health maintenance & prevention.

The evaluation of skills and attitudes is performed before the examination based on the duration of training in a tertiary Paediatric Nephrology Centre and a letter from its training director certifying the eligibility of the candidate.

II. STEERING COMMITTEE

For preparing, planning, executing and evaluating ESPN Board Examination the ESPN council has established a Steering Committee (SC).

Composition of SC

- a chair
- 6 clinical members
- 1 educational expert
- 1 expert in online board examinations.

SC members represent different European regions and are elected by the ESPN council for three years. An extension is possible for another three years. For the continuation of expertise, members of the SC might rotate on a staggered manner with at least 50% of the members staying for a second term.

Tasks and responsibilities of SC

- Establishing the examination Blueprint
- Establishing rules & procedures of the examinations
- Establishing the eligibility criteria
- Evaluating CVs of candidates and selecting candidates eligible for examination
- Selecting timing of the examination

- Monitoring the examination
- Evaluating examination results, setting up the pass mark
- Communicating examination results to the candidates
- Evaluating the examination and performing a SWOT analysis
- Improving the examination based on the evaluation

Training of SC

ESPN SC underwent a 2-day training on the methodology of professional postgraduate assessment organizing by the ESPN council. Each term, new SC members follow a similar online training.

Meetings of SC

SC meets regularly, at least 3 times per year (live or online), to discuss the examination matters. ESPN chair keeps minutes and an actions list that are distributed among the committee members.

III. ELIGIBILITY CRITERIA, REGISTRATION AND ACCESS TO EXAMINATION

Assessment rules that are defined and updated by SC and are published on ESPN website prior to opening the registration for the examination.

The **ESPN Board Examination in Paediatric Nephrology** online application is available on ESPN website (<https://www.espn-online.org/espn-board-examination/>) both for ESPN and non-ESPN members.

The **eligibility criteria** are:

1. MD certification
2. General Paediatrics / Adult Nephrology certification
3. Certified training in Paediatric Nephrology for a period of at least 24 months (preferable 36 months)
4. Adequate clinical skills and professional attitudes certified by the Paediatric Nephrology training director

Registration

The required **documents** for application are:

1. Copy of MD Certificate
2. Copy of General Paediatrics / Adult Nephrology Certificate
3. Letter of the Paediatric Nephrology Training Director confirming start and end dates of training in Paediatric Nephrology, adequate clinical skills in Paediatric Nephrology at the tertiary level, and good professional attitude towards patients, families, and colleagues

Online information required for registration:

1. Name and surname
2. Email address
3. Country of residence
4. Date of birth
5. Date of MD Certification
6. Date of General Paediatrics / Adult Nephrology Certification
7. Dates of start and end of training in Paediatric Nephrology
8. Name of the training centre(s)
9. Name of the training director(s)
10. Former ESPN Board Examination

Application procedure is published on ESPN website six months before the exam, and additional announcements are regularly sent to ESPN mailing list.

The on-line submission of personal data and allowing access to the ESPN SC is authorized by applicants and follows the GDPR requirements.

The ESPN SC is responsible for all applications review and verification of eligibility criteria and confirmation.

All applicants receive a letter of Acceptance / Non-eligibility for the examination one month before the date of the examination. Reasons for non-eligibility are fully explained.

Access to online examination

All eligible candidates are responsible for their own registration at Examfolio platform at least 48h before the exam. Individual links will be activated by a password that will be shared with candidates at the beginning of the examination. The examination link expires 3 hours after the start of the examination.

IV. ASSESSMENT RULES

Assessment method, examination format

Questions. ESPN Board uses clinical case-based multiple-choice questions (MCQ) with one best of five correct answer option (BO5 MCQ).

Each examination contains 100 BO5 MCQs covering all aspects of Paediatric Nephrology summarized as 10 main topics, predefined in a Blueprint (see Attachment).

For each topic different aspects of knowledge such as pathophysiology, diagnosis, management and health maintenance & prevention are assessed.

BO5 MCQ are written by a separate ESPN MCQ writing committee. Each question is peer reviewed by a member of the SC and contains a validation comment justifying the correct answer and a reference to the literature.

Format. ESPN uses an online examination format. To this end ESPN uses a professional Examfolio examination platform. Examfolio is a product of Ektimo ApS (Ektimo ApS Gammeltoftsgade 12B, kld. 1353 Copenhagen K, DE) (see <https://www.examfolio.com/>).

Duration of examination. Online ESPN board examination lasts 3 hours.

Score calculation

Examfolio platform performs an electronic score calculation based on a pre-defined correct answer to each MCQ.

Decision about the pass-fail criteria

ESPN SC uses a modified Angoff method for setting up a pass mark. Angoff is a standard setting method that requires subject experts making judgements about how difficult each MCQ in an exam is by predicting the percentage of borderline candidates that would get this question correct.

After the examination, each MCQ is evaluated by Examfolio platform for its discriminative value. Poorly performing questions can be removed from the evaluation, if needed, and the Angoff pass mark can be adjusted. The minimum pass mark is 60%.

The appeal procedure

Candidates see their own score immediately after the examination. Candidates who don't agree with their score are invited to appeal within 4 weeks after receiving the report of the examination.

ESPN SC evaluates the examination and the appeals to set up the final pass score.

Reporting examination results

Each candidate receives the individual report within one month after the examination.

Candidates who have successfully passed the examination received the ESPN Board Certificate in Paediatric Nephrology (see annex).

Number of permitted attempts by candidates

ESPN SC limits the number of attempts to three, taken over three consecutive years (with at least 12 months interval) after finalizing the training. ESPN SC might accept additional attempts in case of exceptional circumstances or after additional training undertaken by a candidate (such as taking the ESPN Junior Master Classes – 3-year cycle).

Assessment fee

ESPN members: €150

Non-ESPN members: €250

Each year ESPN provides grants for candidates coming from low-income countries (<https://datahelpdesk.worldbank.org/knowledgebase/articles/906519>).

The assessment fee is not reimbursed to candidates in case of no-show except in extenuating circumstances.

Assessment size

ESPN Board is a medium-scale assessment (50-150 candidates per year).

Counselling of failed candidates

ESPN SC will individual counseling for candidates who have not been successful in order to discuss the major flaws in their attempt at the examination. This counseling cannot result in changing the score but aims to help candidates undertake a successful attempt during the next examination.

V. CURRICULUM, SYLLABUS, TRAINING COURSES

- ESPN has a defined training curriculum (ESPN curriculum in Pediatric Nephrology (<https://www.esponline.org/education-committee/>) and syllabus (see annex).
- ESPN organizes annual ESPN Junior for Master Classes covering all aspects of Paediatric Nephrology.
- ESPN has an online training curriculum in collaboration with the European Reference Rare Kidney Diseases Network (see (<https://www.erknet.org/education-training/past-webinars>))

VI. QUALITY MANAGEMENT

ESPN SC aims at highest quality of the examination following the UEMS standards and CESMA guidelines

Access to regulations and training materials

All candidates for an examination have free access to the regulations, as well as to the curriculum/syllabus, and information on any appropriate educational resources.

The detailed descriptions of the curriculum/syllabus, the scope of the examination is clearly explained to candidates. A pre-defined Blueprint ensures an appropriate distribution of questions according to perceived importance of individual components of the curriculum/syllabus.

Objective score calculation

ESPN SC uses electronic score calculation directly by computer-based assessments.

Score calculation rules are clearly described in the assessment rules ensuring that candidates are fully informed of the scoring system in advance.

Statistical validity and clinical validity analysis

The multiple-choice question (MCQ) assessment Examfolio platform allows an automatic calculation of

- level of difficulty of each MCQ
- degree of discriminative power of each MCQ
- general reliability (internal consistency) of the assessment.

The clinical validity of the questions is evaluated by the SC. Most clinically relevant MCQs can be marked as 'trusted questions'. **SWOT analysis**

After the examination ESPN SC implements a SWOT analysis of the assessment on an annual basis. Performing this analysis year after year will ensure a thorough quality management system of the assessment and will yield a continuous cycle of quality improvement.

Selection of examination questions

BO5 MCQs are written by ESPN Writing Committee consisting of 15 fully trained Paediatric Nephrologists working in tertiary Paediatric Nephrology centers in Europe.

Each question is peer-reviewed by a member of ESPN SC.

All approved questions are collected in the MCQ database provided by Examfolio platform.

Prior to the examination ESPN SC selects 100 MCQs for the next examination according to a predefined Blueprint (see annex).

ESPN SC established a rule that each year 70 new questions should be written and approved (70% of the number of questions required per topic for the examination). 30% of MCQs from the previous examinations can be used (unchanged for well-performing MCQs or adapted and approved again by the SC).

Selection of examiners

ESPN board is an online examination. At least 4 members of ESPN SC are present online via ZOOM connection during the examination to secure the examination procedure.

VII. GOOD PRACTICE

GDPR (General Data Protection Regulation)

ESPN Board Examination follows GDPR requirements at each phase of the examination procedure. Personnel information on candidates is submitted via an online platform. Candidates provide a written agreement that personal information can be shared with the members of ESPN SC. ESPN SC guarantees that personal information on candidates is not shared with third parties.

ESPN board evaluation individual scores can only be seen by the members of the ESPN SC and are not shared with third parties.

ESPN board examination is recorded using a zoom platform. All candidates provide a written agreement that they agree with this recording.

Security

Registration of candidates

The identity of candidates throughout the assessment process is confirmed by the ID documents, confirmation letter by the training director of the program, and via camera observation during the examination.

Protection of MCQs

MCQs are stored in secured Examfolio database. Only members of ESPN SC have access to this database. To preclude distribution of MCQs from the previous years via social media or other channels, each year answer options are changed.

Protection against fraud

During the examination each candidate is monitored by a camera and computer screen sharing in order to prevent fraud. Camera monitoring is recorded and can be consulted if fraud is suspected. Candidates are offered an opportunity to test their camera position and screen sharing prior to the examination by ESPN secretariat.

Members of ESPN SC monitor camera and screen sharing images of each candidate. If during the examination the internet connection is lost, the camera is switched off or is not positioned at the right angle, a candidate receives a warning message. An examination can be considered invalid if a candidate does not respond to the warning.

The candidate is asked to formally agree with the examination rules and camera monitoring and recording by checking in online form upon registration for the examination (see annex).

Dissemination of results

Results of the examination (pass or fail) and a pass score are sent to the candidates by an individual email within one month after the examination. The SC guarantees the privacy of results sharing.

Archiving

Individual examination score of each candidate are archived in the Examfolio platform for five years after their examination.

VIII. LIST OF ANNEXES

1. ESPN Paediatric Nephrology Syllabus
2. ESPN Paediatric Nephrology Blueprint
3. ESPN Paediatric Nephrology Board Registration form