

2026 Akita University Faculty of Medicine Syllabus

Category	: 臨床医学 V (CC1)
Course Title	: Pediatrics
Eligible Students	: grade 5 Related Course
Code	: 71643002-14

1. Lead Instructor

Hirokazu Arai (Professor, Department of Pediatrics, 6157)

2. Instructors

Hirokazu Arai (Professor, Department of Pediatrics, 6157)

3. Course Description Outline(Course Objectives)

1. ねらい Aim

チームの一員として病棟や外来患者さんへの診療を通して、将来、どのような分野の医師にも必要な小児科領域を中心とした症候や病態の臨床推論、鑑別診断、検査・治療方針決定等の実践力を習得する。

Student doctor participates in medical activities as a member of medical team in Akita University Hospital, acquires essential medical skills for pediatric medicine, and practically learns the related medical behavioral science, medical ethics, medical safety, medical law (social medical system), and evidence-based medicine.

また、関連するプロフェッショナリズム、倫理、医療行動科学、医療安全、医療法（制度）、EBM について学ぶ。

Students will be able to explain about professionalism, medical ethics, (medical behavioral science), patient safety, Evidence-based Medicine (EBM), medical law (and the legal system) related to the field.

2. 概要（大まかな学習目標（項目））overview

- ・患者および保護者と良好な人間関係を確立できる。(2-1~2-8)
To establish appropriate relationships with patients and their guardians.
- ・問題解決に必要な情報を適切に収集できる。
To appropriately collect information necessary for solving problems.
*患者および保護者から必要な身体的・精神的・社会的情報を得ることができる。(2-1~2-8)
To obtain physical, mental, and social information from patients and guardians.
*患者および保護者の立場を考慮しつつ、視診・聴診・触診・打診等により必要な情報を得ることができる。(2-1~2-8, 4-1~4-2)
Necessary information can be obtained through inspection, auscultation, palpation, percussion, etc., while understanding the standpoint of the patient and guardian.
- ・収集した情報を適切に記載し、問題点を把握できる。(2-1~2-8, 3-1~3-7)
To appropriately describe the collected information and understand the problems.
- ・問題解決のための診断・治療計画を立案できる。(4-2)
To make diagnosis and then planning for treatment.
- ・小児科における特性を理解し、実践することができる。
To understand the characteristics of pediatrics and be able to put them into practice.
*年齢による疾患の特殊性を理解する。(3-2~3-4)
To understand the age-related diseases in Pediatrics.
*検査結果の年齢による違いを解釈できる。(3-3, 4-2)
To explain the age-related differences of laboratory tests in children.
*小児における診療技術の特殊性を理解する。(4-3)
To understand the characteristics of clinical techniques in children.
*乳幼児健康診査や予防接種への参加を通じ、正常小児の成長発達および子どもの健康支援と予防医療の重要性を理解する。(3-4, 4-8)

To understand the importance of normal child growth and development, child health support, and preventive medicine through participation in infant health checkups and immunizations.

・適切なプレゼンテーションができる。

To be able to give an appropriate presentation.

* 症例を適切に要約し、場面に応じて提示できる。(2-4, 4-5)

To be able to summarize clinical cases appropriately and present them in context.

* 問題提示に対して、他者と適切な討論ができる。(2-5)

To be able to discuss the target issues appropriately with others.

* 文献検索等を通じ、問題解決のための資料が作成できる。(4-5)

Through literature searches, etc., students can create materials for problem solving.

1) 病棟実習 Ward training

各学生は4つの診療チーム(総合、循環器、新生児、血液・腫瘍)のいずれかに2週間配属され、指導医のもと数名の病棟患者さんを担当する。指導医の監督の下に、日々、病棟担当患者さんの回診を行い、病状や身体所見をカルテに記載する(指導医の確認必須)。医療面接や身体診察による課題抽出、文献検索による臨床推論、検査・治療方針の提案、カンファランス時等の各種プレゼンテーション、患者・家族への説明への参加など、チームの一員としてEBMに基づいた基本的な診療を実践的に学ぶ。

Student doctor is assigned to one of 4 medical teams, 1) general pediatrics, 2) pediatric cardiology, 3) neonatology, and 4) pediatrics hematology & oncology, for 2 weeks in the department of pediatrics, and participates in medical activities primarily for several children together with instructors. Student doctor practices daily patient rounds, physical examinations, laboratory tests, and other medical activities with instructor. Student doctor writes a medical record that needs to be checked and signed by the instructor.

In addition, student doctor practices medical interview, medical documents retrieval, patient presentation in conference, and participation in explanation and consent with patients and family.

2) 外来実習・各種検査など Outpatient training, various tests, etc.

このような病棟の担当患者診療の合間には、外来の新患、再来患者さんの診療や、各種の検査・治療に参加しながら、診療チームの一員として臨床推論・検査・治療の過程を実践的に学ぶ。

Student doctor also practices medical activities in outpatient.

3. (詳細な)学修目標 learning targets

1) 症候・病態 臨床推論 Symptoms/pathological clinical reasoning (3-1~3-2)

発熱、全身倦怠感、食思(欲)不振、体重減少・体重増加、ショック、心停止、意識障害・失神、けいれん、めまい、脱水、浮腫、発疹、咳・痰、血痰・咯血、呼吸困難、胸痛、動悸、胸水、嚥下困難・障害、腹痛、悪心・嘔吐、吐血・下血、便秘・下痢、黄疸、腹部膨満(腹水を含む)・腫瘤、貧血、リンパ節腫脹、尿量・排尿の異常、血尿・タンパク尿、月経異常、不安・抑うつ、もの忘れ、頭痛、運動麻痺・筋力低下、腰背部痛、関節痛・関節腫脹、外傷・熱傷

Fever, general malaise, loss of appetite, weight loss/weight gain, shock, cardiac arrest, disturbance of consciousness/fainting, convulsion, dizziness, dehydration, edema, rash, cough/sputum, bloody sputum/hemoptysis, dyspnea, Chest pain, palpitations, pleural effusion, dysphagia/disorder, abdominal pain, nausea/vomiting, hematemesis/melena, constipation/diarrhea, jaundice, abdominal swelling (including ascites)/mass, anemia, lymphadenopathy, urine volume/urination Abnormality, hematuria/proteinuria, menstrual abnormality, anxiety/depression, forgetfulness, headache, motor paralysis/muscle weakness, back pain, joint pain/swelling, trauma/burn

2) 基本的臨床手技 basic clinical techniques (3-3, 4-2, 4-6)

体位交換, 移送, 皮膚消毒, 外用薬の貼付・塗布, 気道内吸引, ネブライザー, 静脈採血, 末梢静脈確保, 胃管挿入, 尿道カテーテル挿入・抜去, 注射(皮内・皮下・筋肉内・静脈内), 診療記録, 小児からの採血, カニューレ交換, 浣腸

Position change, transfer, skin disinfection, application/application of topical drugs, airway suction, nebulizer, vein sampling blood, access to peripheral veins, insertion of gastric tube, insertion/removal of urinary catheter, injection (intradermal/subcutaneous/intramuscular/intravenous), medical records, blood sampling from children, cannula exchanges, enemas

3) 検査・治療手技 Examination/Treatment Technique (4-2)

脳波検査（判読），筋電図，眼球に触れる検査，超音波検査（判読），X線検査，CT・

MRI・核医学・内視鏡検査，尿検査，血液塗抹標本の作製と観察，微生物学的検査（グラム染色を含む），妊娠反応検査，超音波検査（心臓血管・腹部），心電図，経皮的酸素飽和度モニター，病原体抗原の迅速検査，簡易血糖測定，アレルギー検査（塗布），発達テスト，知能テスト，心理テスト，処方薬（内服薬）・注射・点滴などのオーダー，食事指示，安静度指示，定型的な術前・術後管理の指示，酸素投与量の調整，診療計画の作成，健康教育

Electroencephalography (reading), electromyography, eye examination, ultrasonography (reading), X-ray examination, CT/MRI, nuclear medicine, endoscopy Urinalysis, preparation and observation of blood smears, microbiological tests (including Gram stain), pregnancy test

Examination, ultrasonography (cardiovascular/abdominal), electrocardiogram, percutaneous oxygen saturation monitor, pathogen antibody Hara Rapid Test, Simple Blood Glucose Measurement, allergy test (application), developmental test, intelligence test, psychology test

Orders for prescription drugs (oral medicine), injections, infusions, meal instructions, bed rest instructions, typical preoperative/Instructions for postoperative management, adjustment of oxygen dose, preparation of treatment plan health education

4) 医学行動科学，医療倫理，医療安全，医療法（医療制度），EBM professionalism, medical ethics, (medical behavioral science), patient safety, Evidence-based Medicine (EBM) (3-5～3-7, 4-4)

(1) 治療の立案・実施に可能な範囲で参加する。

To participate in planning and practicing of treatment to the extent possible

(2) 保護者から必要な情報を得たり対応したりすることに可能な範囲で参加する。

To participate in medical interview with a guardian of patient to the extent possible

(3) 小児の成長・発達の評価に可能な範囲で参加する。

To participate in evaluation for growth and development of patient to the extent possible

(4) どのように小児科にコンサルテーションすればよいかわかる。

To understand how to consult pediatrics as another professional practitioner.

本科目は実務経験のある教員による授業科目です。

This course is conducted with experienced pediatricians.

4. Textbook/Reference Books

Nelson Textbook of Pediatrics, Osiki's Essential Pediatrics

5. Assessment

態度，レポート

Attitude, Report

6. Out of Class Study/Message

実習初日は8時20分よりオリエンテーション（小児科医局横の共用室、事前に要確認）

アフタヌーンカンファランス（各実習期間内に1回）に参加し、医師とともに考え、学ぶ。

The first day of class starts from 8:20 as an orientation for all student doctors. Visit the department of pediatrics and make sure the site in advance.

Participation in two afternoon conferences, 13:00 or 13:30 every Tuesday, are mandatory for all student doctors.

小児科学 臨床実習

Schedule		Contents of Class
1	Mon [8:30 - 17:00] Subtitle 臨床実習 Instructor 全教員	8:30-12:00 病棟実習 Practice in hospital 13:30-16:00 臨床講義及び自習 Practice in hospital or self-study 16:00-17:00 病棟実習 Practice in hospital
2	Tue [8:30 - 17:00] Subtitle 臨床実習 Instructor 全教員	8:30-12:00 病棟実習 Practice in hospital 13:30-16:00 教授回診、入退院カンファレンス Clinical conference 16:00-17:00 病棟実習 Practice in hospital 17:00-18:00 外科との合同カンファレンス (該当例のある時のみ) Pediatrics and surgery conference
3	Wed [8:30 - 17:00] Subtitle 臨床実習 Instructor 全教員	8:30-12:00 病棟実習 Practice in hospital 13:30-16:00 臨床講義及び自習 Practice in hospital or self-study 16:00-17:00 病棟実習 Practice in hospital
4	Thu [8:30 - 17:00] Subtitle 臨床実習 Instructor 全教員	8:30-12:00 病棟実習 Practice in hospital 13:30-16:00 臨床講義及び自習 Practice in hospital or self-study 16:00-17:00 病棟実習 Practice in hospital
5	Fri [8:30 - 17:00] Subtitle 臨床実習 Instructor 全教員	8:30-12:00 病棟実習 Practice in hospital 午後は医学医療総合講義
6	Mon [8:30 - 17:00] Subtitle 臨床実習 Instructor 全教員	8:30-12:00 病棟実習 Practice in hospital 13:30-16:00 臨床講義及び自習 Practice in hospital or self-study 16:00-17:00 病棟実習 Practice in hospital
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10	Fri [8:30 - 17:00] Subtitle 臨床実習 Instructor 全教員	8:30-12:00 病棟実習 Practice in hospital 午後は医学医療総合講義