

Données supplémentaires – Outils utilisés en observation directe répertoriés dans la littérature

OUTIL DE DOCUMENTATION	PAYS (N = NB D'ARTICLES)	DISCIPLINES (N = NB D'ARTICLES)	FORMAT	CONTENU	
ARIZONA CLINICAL INTERVIEW RATING SCALE (ACIR) & HISTORY AND PHYSICAL EXAM (HPE) CHECKLIST ¹	É-U	Multidisciplinaire	Critérié Liste de vérification	14 items Non spécifié 58 items (<i>history, examination, counseling, communication</i>)	
ASSESSMENT OF BASIC PHYSICAL EXAMINATION SKILLS ²	É-U	Médecine interne	Liste de vérification	45 items (non specified)	
ASSESSMENT TOOL FOR CLINICOSOCIAL CASE STUDY ³	Inde	Médecine communautaire	Normatif 1 à 3 = <i>unsatisfactory</i> 4 à 6 = <i>satisfactory</i> 7 à 9 = <i>superior</i>	10 items (<i>medical interviewing skills, socioeconomic classification, environmental conditions, social history, family planning and immunization, nutritional assessment, physical examination skills, epidemiological findings, counseling skills, overall competence</i>)	
CLINICAL OBSERVED PERFORMANCE EVALUATION (COPE) ⁴	Irlande	Chirurgie	Critérié 1 = <i>poor</i> 2 = <i>doubtful</i> 3 = <i>acceptable</i> 4 = <i>competent</i> 5 = <i>proficient</i>	5 items (<i>history, examination, communication, interpretation, overall rating</i>)	
CLINICAL-PERFORMANCE (CPB) ^{1, 5, 6}	BIOPSY	É-U	Médecine familiale	Critérié + partie narrative	3 items (<i>history taking and physical examination, interpersonal skills, clinical problem solving</i>)
COMMUNICATION BEHAVIORS CHECKLIST ¹	É-U	Urgence	Liste de vérification + critérié (<i>poor, good, excels</i>)	34 items (<i>introductions, rapport, conflict management, information gathering, contracting/informaing, non-verbal communication, summary scores</i>)	
COMPETENCE-BASED ASSESSMENT ⁶	É-U	Rhumatologie	Critérié	(<i>history taking, examination rating, diagnostic skills rating, management plan rating, communication skills rating</i>)	
COMPETENCY ASSESSMENT TOOL (CAT) ⁷	É-U	Médecine interne	Liste de vérification	19 items (<i>communication, pain and symptom management, ethical and legal aspects of care, psychosocial/cultural/spiritual aspects of care; hospice care and referrals</i>)	
CRITICAL CARE DIRECT OBSERVATION TOOL (CDOT) ⁸	É-U	Urgence	Liste de vérification	19 items (<i>emergency stabilization, focused history and physical exam, diagnostic studies, diagnosis, professional values, patient centered communication, team management, systems-based management</i>)	
DEMING MANAGEMENT METHOD ¹	É-U	Urgence	Critérié	9 items (<i>patient care, systems-based management, professional values, interpersonal and communication skills</i>)	
DIRECT OBSERVATION DATA COLLECTION FORM ⁹	É-U	Urgence	Normatif (<i>excels, meets expectations, areas to work on</i>) + partie narrative	16 items (<i>communication, counseling</i>)	
DIRECT OBSERVATION OF PROCEDURAL SKILLS (DOPS) ¹⁰⁻²⁵	Royaume-Uni (n=7) Australie (n=3) Inde (n=2) Iran (n=2) Arabie Saoudite (n=1) Turquie (n=1)	Spécialités chirurgicales (chx générale, anesthésie, gyn/ob) (n=9) ORL (n=2) Review (n=2) Histopathologie (n=1) Pédiatrie (n=1) Urgence (n=1)	Critérié ou normatif Échelle : variable + partie narrative (variable)	50 items (<i>history/data gathering, physical examination, synthesis/ddx, management, disposition</i>) Variable Déroulement de l'ensemble du contexte entourant le geste technique : 7-12 items Exemples - Clinical knowledge - Consent - Preparation - Vigilance - Infection control - Technical ability - Insight - Team interaction - Documentation/post-procedure management - Overall performance for this procedure	
EMERGENCY MEDICINE (PGY1, PGY2 OR PGY3) DIRECT OBSERVATION SKILLS LIST ¹	É-U	Urgence	Normatif	Compétences ²³ : (<i>Communication and teamwork, situation awareness, judgement and decision making, leadership</i>) 23 – 29 items (<i>history, examination, communication</i>)	
FIRST-YEAR RESIDENT OUTPATIENT CORE COMPETENCIES ¹	É-U	Médecine familiale	Critérié	11 items (<i>history, communication, counseling</i>)	
INTEGRATED DIRECT OBSERVATION ENOUNTER EXAMINATION (IDOCCE) ^{26, 27}	Moyen-Orient	Non spécifié	Critérié (<i>Unsatisfactory, satisfactory</i>) + partie narrative (<i>comments</i>)	10 — 11 items (<i>data gathering skills, reasoning and analysis skills, decision making skills, professional attitude</i>)	
INTERNAL MEDICINE RESIDENT EVALUATION FORM (IMREF) ²⁸	É-U	Médecine familiale	Critérié 1 à 3 = <i>unsatisfactory</i> 4 à 6 = <i>satisfactory</i>	7 items (<i>patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, system-based practice, overall clinical competence</i>)	

Données supplémentaires – Outils utilisés en observation directe répertoriés dans la littérature

LONGITUDINAL EVALUATION OF PERFORMANCE ⁶ MAASTRICHT HISTORY-TAKING AND ADVICE SCORING LIST ¹ MEDICAL INTERVIEW SKILLS CHECKLIST (MISC) ¹ MINICARD ^{1, 6, 29, 30}	É-U	Non spécifié	7 à 9 = superior	8 items (<i>examination &consultation skills, clinical judgement & diagnosis, technical ability & manual dexterity, communication skills, professionalism, knowledge, organisation, overall clinical competence</i>) 11 items (<i>communication, counseling</i>) 83 items (<i>history, communication, counseling</i>)
			Critérié	
			Critérié	
			Critérié (<i>excellent, good, marginal, poor</i>) + partie narrative <u>Ou</u> Normatif 1–2 = <i>below expectations</i> 3 = <i>borderline</i> 4 = <i>meets expectations</i> 5–6 = <i>above expectations</i> + partie narrative (variable)	
NON-TECHNICAL SKILLS FOR SURGEONS (NOTSS) ⁶³	Royaume-Uni	Chirurgie	Critérié 1 = <i>poor</i> 2 = <i>marginal</i> 3 = <i>acceptable</i> 4 = <i>good</i> + partie narrative	12 items (<i>situation awareness, decision making, communication and teamwork, leadership</i>)
PROFESSIONALISM MINI EVALUATION EXERCICE ⁶ REVISED INFANT VIDEO QUESTIONNAIRE ¹ SANS NOM (A THREE-TIERED EVALUATION TOOL MODELED AFTER THE DEMING MANAGEMENT METHOD) ⁶⁴	É-U	Non spécifié	Non spécifié	24 items (<i>doctor-patient relationship skills, reflective skills, time management, interprofessional relationship skills</i>) 51 items (<i>history, examination, communication, counseling</i>)
SANS NOM ⁶⁵	É-U	Pédiatrie	Liste de vérification	16 items (<i>interpersonal skills</i>)
SANS NOM ⁶⁶	É-U	Orthopédie	Critérié et liste de vérification	41 items (<i>information gathering, relationship development, educational/shared information, closing, used translator, fatigue, clinical reasoning, professionalism, knowledge, practice-based learning and improvement and professionalism, cost containment considered/discussed, medical record review</i>) History-taking skills: 14 items (<i>data gathering skills, communication skills, humanistic behaviors</i>) Physical Exam skills: 8 items (<i>general technique, rational use of exam, specific exam skill</i>) Counseling skills: 12 items (<i>principles of Informed decision-making, general communication skills, humanistic behaviors</i>) 26 items (<i>data gathering, synthesis/differential diagnosis, management, disposition</i>)
STANDARDIZED DIRECT OBSERVATION ASSESSMENT TOOL ^{1, 6, 67, 68}	É-U	Médecine interne	Liste de vérification + partie narrative	31 - 46 items (<i>data gathering, interpersonal skills, physical examination, information giving +/- opening the interview, personal manner</i>) 10 items (<i>communication, counseling, professionalism</i>)
STRUCTURED CLINICAL OBSERVATION (SCO) ^{1, 6, 69-71} 360 – DEGREE EVALUATION FORM ¹	É-U	Urgence	Normatif 1 = <i>needs improvement</i> 2 = <i>meets expectations</i> 3 = <i>above expectations</i>	
	É-U	Pédiatrie	Liste de vérification +/-critérié (0 = no, 1 = partial, 2 = yes)	
	É-U	Radiologie	Critérié 1 à 5 = <i>strongly disagree à strongly agree</i>	

Données supplémentaires – Outils utilisés en observation directe répertoriés dans la littérature

Références

1. Kogan JR, Holmboe ES, Hauer KE, Kogan JR, Holmboe ES, Hauer KE. Tools for direct observation and assessment of clinical skills of medical trainees: a systematic review. *JAMA*. 2009;302(12):1316-26. <https://doi.org/10.1001/jama.2009.1365>
2. Li JT. Assessment of basic physical examination skills of internal medicine residents. *Acad Med*. 1994;69(4):296-9. <https://doi.org/10.1097/00001888-199404000-00013>
3. Gohel M, Singh US, Bhanderi D, Phatak A. Developing and pilot testing of a tool for "clinicospocial case study" assessment of community medicine residents. *Education for health* (Abingdon, England). 2016;29(2):68-74. <https://doi.org/10.4103/1357-6283.188684>
4. Markey GCgsi, Browne K, Hunter K, Hill AD. Clinical observed performance evaluation: a prospective study in final year students of surgery. *Adv. Health Sci. Educ.* 2011;16(1):47-57. <https://doi.org/10.1007/s10459-010-9240-9>
5. Ross R. A clinical-performance biopsy instrument. *Acad Med*. 2002;77(3):268. <https://doi.org/10.1097/00001888-200203000-00021>
6. Pelgrim EAMepeun, Kramer AWM, Mokkink HGA, Van den Elsen L, Grol RPTM, Van der Vleuten CPM. In-training assessment using direct observation of single-patient encounters: a literature review. *Adv. Health Sci. Educ.* 2011;16(1):131-42. <https://doi.org/10.1007/s10459-010-9235-6>
7. Ross DD, Shpritz DW, Wolfsthal SD, et al. Creative solution for implementation of experiential, competency-based palliative care training for internal medicine residents. *Cancer Educ*. 2011;26(3):436-43. <https://doi.org/10.1007/s13187-011-0235-x>
8. Schott M, Kedia R, Promes SB, et al. Direct observation assessment of milestones: problems with reliability. *West. J. Emerg. Med.* 2015;16(6):871-6. <https://doi.org/10.5811/westjem.2015.9.27270>
9. Dorfsman ML, Wolfson AB. Direct observation of residents in the emergency department: a structured educational program. *Acad Emerg Med*. 2009;16(4):343-51. <https://doi.org/10.1111/j.1553-2712.2009.00362.x>
10. Amini A, Shirzad F, Mohseni MA, Sadeghpour A, Elmi A. Designing direct observation of procedural skills (DOPS) test for selective skills of orthopedic residents and evaluating its effects from their points of view. *RDME*. 2015;4(2):147-52. <https://doi.org/10.15171/rdme.2015.026>
11. Awad Z, Hayden L, Muthuswamy K, Ziprin P, Darzi A, Tolley NS. Does direct observation of procedural skills reflect trainee's progress in otolaryngology? *Clin Otolaryngol*. 2014;39(3):169-73. <https://doi.org/10.1111/coa.12251>
12. Barton JR, Corbett S, van der Vleuten CP. The validity and reliability of a Direct Observation of Procedural Skills assessment tool: assessing colonoscopic skills of senior endoscopists. *Gastrointest Endosc*. 2012;75(3):591-7. <https://doi.org/10.1016/j.gie.2011.09.053>
13. Bindal NNBunu, Goodey H, Bindal T, David Wall D. DOPS assessment: a study to evaluate the experience and opinions of trainees and assessors. *Med teach*. 2013;35(6):e1230-e4. <https://doi.org/10.3109/0142159X.2012.746447>
14. Chuan A, Thillainathan S, Graham PL, Jolly B, Wong DM, Smith N, Barrington MJ. Reliability of the direct observation of procedural skills assessment tool for ultrasound-guided regional anaesthesia. *Anaesth Intensive Care*. 2016;44(2):201-9. <https://doi.org/10.1177/0310057X1604400206>
15. Delfino AE, Chandratilake M, Altermatt FR, Echevarria G. Validation and piloting of direct observation of practical skills tool to assess intubation in the Chilean context. *Med teach*. 2013;35(3):231-6. <https://doi.org/10.3109/0142159X.2012.737967>
16. Erfani Khanghahi M, Ebadi Fard Azar F. Direct observation of procedural skills (DOPS) evaluation method: systematic review of evidence. *MJIRI*. 2018;32:45. <https://doi.org/10.14196/mjiri.32.45>
17. Finall A. Trainers' perceptions of the direct observation of practical skills assessment in histopathology training: a qualitative pilot study. *J clinical pathology*. 2012;65(6):538-40. <https://doi.org/10.1136/jclinpath-2012-200682>
18. Kara CO, Mengi E, Tumkaya F, Topuz B, Ardic FN. Direct observation of procedural skills in otorhinolaryngology training. *Turk Arch Otorhinolaryngol*. 2018;56(1):7-14. <https://doi.org/10.5152/tao.2018.3065>
19. Kumar N, Singh NK, Rudra S, Pathak S. Effect of formative evaluation using direct observation of procedural skills in assessment of postgraduate students of obstetrics and gynecology: prospective study. *JAMP*. 2017;5(1):1-5.
20. Kundra S, Singh T. Feasibility and acceptability of direct observation of procedural skills to improve procedural skills. *Indian pediatrics*. 2014;51(1):59-60. <https://doi.org/10.1007/s13312-014-0327-x>
21. Lee V. Maximising direct observation of procedural skills for learning in the emergency department. *Emerg Med Australas*. 2018;30(1):111-2. <https://doi.org/10.1111/1742-6723.12928>
22. Naeem N. Validity, reliability, feasibility, acceptability and educational impact of direct observation of procedural skills (DOPS). Journal of the College of Physicians and Surgeons--Pakistan : JCPSP. 2013;23(1):77-82.
23. Siau K, Dunckley P, Valori R, et al. Joint advisory group on gastrointestinal e. changes in scoring of direct observation of procedural skills (DOPS) forms and the impact on competence assessment. *Endoscopy*. 2018;50(8):770-8. <https://doi.org/10.1055/a-0576-6667>
24. Siau K, Levi R, Howarth L, et al. Validity evidence for direct observation of procedural skills in paediatric gastroscopy. *J. Pediatr. Gastroenterol. Nutr.* 2018;67(6):e111-e6. <https://doi.org/10.1097/MPG.0000000000002089>
25. Watson MJ, Wong DM, Kluger R, et al. Psychometric evaluation of a direct observation of procedural skills assessment tool for ultrasound-guided regional anaesthesia. *Anaesthesia*. 2014;69(6):604-12. <https://doi.org/10.1111/anae.12625>
26. Abouna GM, Hamdy H. The Integrated Direct Observation Clinical Encounter Examination (IDOCEE)--an objective assessment of students' clinical competence in a problem-based learning curriculum. *Med Teach*. 1999;21(1):67. <https://doi.org/10.1080/0142159980066>

Données supplémentaires – Outils utilisés en observation directe répertoriés dans la littérature

27. Hamdy H, Prasad K, Williams R, Salih FA. Reliability and validity of the direct observation clinical encounter examination (DOCEE). *Med Ed.* 2003;37(3):205-12. <https://doi.org/10.1046/j.1365-2923.2003.01438.x>
28. Shelesky G, D'Amico F, Marfatia R, Munshi A, Wilson SA. Does weekly direct observation and formal feedback improve intern patient care skills development? A randomized controlled trial. *Fam Med.* 2012;44(7):486-92.
29. Donato AA, Park YS, George DL, Schwartz A, Yudkowsky R. Validity and feasibility of the minicard direct observation tool in 1 training program. *J Grad Med Ed.* 2015;7(2):225-9. <https://doi.org/10.4300/JGME-D-14-00532.1>
30. Donato AA, Pangaro L, Smith C, et al. Evaluation of a novel assessment form for observing medical residents: a randomised, controlled trial. *Med Ed.* 2008;42(12):1234-42. <https://doi.org/10.1111/j.1365-2923.2008.03230.x>
31. Al Ansari A, Ali SK, Donnon T. The construct and criterion validity of the mini-CEX: a meta-analysis of the published research. *Acad Med.* 2013;88(3):413-20. <https://doi.org/10.1097/ACM.0b013e318280a953>
32. Allery L. Assess trainees in the clinical workplace using the Mini-CEX (mini clinical evaluation exercise). *Education for Primary Care.* 2006;17(3):270-4. <https://doi.org/10.1080/14739879.2006.11864073>
33. Berz JPB, Cheng T, Quintiliani LM. Milestones-based direct observation tools in internal medicine resident continuity clinic. *BMC med ed.* 2017;17(1):240. <https://doi.org/10.1186/s12909-017-1077-y>
34. Boker A. Toward competency-based curriculum: Application of workplace-based assessment tools in the National Saudi Arabian Anesthesia Training Program. *Saudi J Anaesth.* 2016;10(4):417-22. <https://doi.org/10.4103/1658-354X.179097>
35. Castanelli DJ, Jowsey T, Chen Y, Weller JM. Perceptions of purpose, value, and process of the mini-Clinical Evaluation Exercise in anesthesia training. *Can j anaesthesia.* 2016;63(12):1345-56. <https://doi.org/10.1007/s12630-016-0740-9>
36. Cook DA, Beckman TJ. Does Scale Length Matter? A comparison of nine- versus five-point rating scales for the mini-ceX. *Adv. Health Sci. Educ.* 2009;14(5):655-64. <https://doi.org/10.1007/s10459-008-9147-x>
37. De Lima AA, Henquin R, Thierer J, et al. A qualitative study of the impact on learning of the mini clinical evaluation exercise in postgraduate training. *Med teach.* 2005;27(1):46-52. <https://doi.org/10.1080/01421590400013529>
38. Durning SJ, Cation LJ, Markert RJ, Pangaro LN. Assessing the reliability and validity of the mini-clinical evaluation exercise for internal medicine residency training. *Acad Med.* 2002;77(9):900-4. <https://doi.org/10.1097/00001888-200209000-00020>
39. Goel A, Singh T. The usefulness of Mini Clinical Evaluation Exercise as a learning tool in different pediatric clinical settings. *Int. j. appl. basic med.* 2015;5(Suppl 1):S32-4. <https://doi.org/10.4103/2229-516X.162266>
40. Gupta S, Sharma M, Singh T. The acceptability and feasibility of mini-clinical evaluation exercise as a learning tool for pediatric postgraduate students. *Int J App Basic Med Res.* 2017;7(Suppl 1):S19-S22. https://doi.org/10.4103/ijabmr.IJABMR_152_17
41. Hatala R, Ainslie M, Kassen BO, Mackie I, Roberts JM. Assessing the mini-Clinical Evaluation Exercise in comparison to a national specialty examination. *Med Ed.* 2006;40(10):950-6. <https://doi.org/10.1111/j.1365-2929.2006.02566.x>
42. Hawkins RE, Margolis MJ, Durning SJ, Norcini JJ. Constructing a validity argument for the mini-Clinical Evaluation Exercise: a review of the research. *Acad Med* 2010;85(9):1453-61. <https://doi.org/10.1097/ACM.0b013e3181eac3e6>
43. Humphrey-Murto S, Côté M, Pugh D, Wood TJ. Assessing the Validity of a Multidisciplinary Mini-Clinical Evaluation Exercise. *Teach Learn Med.* 2018;30(2):152-61. <https://doi.org/10.1080/10401334.2017.1387553>
44. Joshi MK, Singh T, Badyal DK. Acceptability and feasibility of mini-clinical evaluation exercise as a formative assessment tool for workplace-based assessment for surgical postgraduate students. *J. Postgrad. Med.* 2017;63(2):100-5. <https://doi.org/10.4103/0022-3859.201411>
45. Khalil S, Aggarwal A, Mishra D. implementation of a mini-clinical evaluation exercise (mini-cex) program to assess the clinical competence of postgraduate trainees in pediatrics. *Indian pediatrics.* 2017;54(4):284-7. <https://doi.org/10.1007/s13312-017-1089-z>
46. Kogan JR, Conforti L, Bernabeo E, lobst W, Holmboe E. Opening the black box of clinical skills assessment via observation: a conceptual model. *Med ed.* 2011;45(10):1048-60. <https://doi.org/10.1111/j.1365-2923.2011.04025.x>
47. Kroboth FJ, Hanusa BH, Parker SC. Didactic value of the clinical evaluation exercise. Missed opportunities. *Journal of general internal medicine.* 1996;11(9):551-3. <https://doi.org/10.1007/BF02599606>
48. Lee V, Brain K, Martin J. Factors Influencing Mini-CEX Rater Judgments and Their Practical Implications: A Systematic Literature Review. *Acad Med.* 2017;92(6):880-7. <https://doi.org/10.1097/ACM.0000000000001537>
49. Liao K-C, Pu S-J, Liu M-S, Yang C-W, Kuo H-P. Development and implementation of a mini-Clinical Evaluation Exercise (mini-CEX) program to assess the clinical competencies of internal medicine residents: from faculty development to curriculum evaluation. *BMC med ed.* 2013;13:31. <https://doi.org/10.1186/1472-6920-13-31>
50. Lima AA, Barrero C, Baratta S, Costa YC, Bortman G, Carabajales J, . . . Van Der Vleuten C. Validity, reliability, feasibility and satisfaction of the Mini-Clinical Evaluation Exercise (Mini-CEX) for cardiology residency training. *Med teach.* 2007;29(8):785-90. <https://doi.org/10.1080/01421590701352261>
51. Lorwald AC, Lahner FM, Nouns ZM, et al. The educational impact of Mini-Clinical Evaluation Exercise (Mini-CEX) and direct observation of procedural skills (dops) and its association with implementation: a systematic review and meta-analysis. *PLoS one.* 2018;13(6):e0198009. <https://doi.org/10.1371/journal.pone.0198009>
52. Malhotra S, Hatala Rrmc, Courneya C-A. Internal medicine residents' perceptions of the Mini-Clinical Evaluation Exercise. *Med teach.* 2008;30(4):414-9. <https://doi.org/10.1080/01421590801946962>
53. Margolis MJ, Clouser BE, Cuddy MM, et al. Use of the mini-clinical evaluation exercise to rate examinee performance on a multiple-station clinical skills examination: a validity

Données supplémentaires – Outils utilisés en observation directe répertoriés dans la littérature

- study. *Acad Med* 2006;81(10 Suppl):S56-60.
<https://doi.org/10.1097/01.ACM.0000236514.53194.f4>
54. Nair BR, Alexander HG, McGrath BP, et al. The mini clinical evaluation exercise (mini-CEX) for assessing clinical performance of international medical graduates. *Med. J. Aust.* 2008;189(3):159-61. <https://doi.org/10.5694/j.1326-5377.2008.tb01951.x>
55. Norcini JJ. The Mini Clinical Evaluation Exercise (mini-CEX). *Clin Teach.* 2005;2(1):25-30. <https://doi.org/10.1111/j.1743-498X.2005.00060.x>
56. Norcini JJ, Blank LL, Duffy FD, Fortna GS. The mini-CEX: a method for assessing clinical skills. *Annals.* 2003;138(6):476-81. <https://doi.org/10.7326/0003-4819-138-6-200303180-00012>
57. Pottier P, Cohen Aubart F, Steichen O, et al. Validity and reproducibility of two direct observation assessment forms for evaluation of internal medicine residents' clinical skills]. *La Revue de medecine interne.* 2018;39(1):4-9.
<https://doi.org/10.1016/j.revmed.2017.10.424>
58. Singh T, Kundra S, Gupta P. Direct observation and focused feedback for clinical skills training. *Indian pediatrics.* 2014;51(9):713-7. <https://doi.org/10.1007/s13312-014-0487-8>
59. Weller JM, Castanelli DJ, Chen Y, Jolly B. Making robust assessments of specialist trainees' workplace performance. *BJA.* 2017;118(2):207-14.
<https://doi.org/10.1093/bja/aew412>
60. Weller JM, Jolly B, Misur MP, et al. Mini-clinical evaluation exercise in anaesthesia training. *BJA.* 2009;102(5):633-41. <https://doi.org/10.1093/bja/aep055>
61. Weller JM, Jones A, Merry AF, et al. Investigation of trainee and specialist reactions to the mini-Clinical Evaluation Exercise in anaesthesia: implications for implementation. *BJA: The British Journal of Anaesthesia.* 2009;103(4):524-30.
<https://doi.org/10.1093/bja/aep211>
62. Yusuf L, Ahmed A, Yasmin R. Educational impact of mini-clinical evaluation exercise: a game changer. *PJMS.* 2018;34(2):405-11. <https://doi.org/10.12669/pjms.342.14667>
63. Beard J, Marriott J, Purdie H, Crossley J. Assessing the surgical skills of trainees in the operating theatre: a prospective observational study of the methodology. *Health Technology Assessment.* 2011;15(24):1-168. <https://doi.org/10.3310/hta15010>
64. Jouriles NJ, Emerman CL, Cydulka RK. Direct observation for assessing emergency medicine core competencies: interpersonal skills. *Acad Emerg Med.* 2002;9(11):1338-41.
<https://doi.org/10.1197/aemj.9.11.1338>
65. Phillips DP, Zuckerman JD, Kalet A, Egol KA. Direct observation: assessing orthopaedic trainee competence in the ambulatory setting. *JAAOS.* 2016;24(9):591-9.
<https://doi.org/10.5435/JAAOS-D-15-00401>
66. Smith J, Jacobs E, Li Z, Vogelman B, Zhao Y, Feldstein D. Successful implementation of a direct observation program in an ambulatory block rotation. *J grad med ed.* 2017;9(1):113-7. <https://doi.org/10.4300/JGME-D-16-00167.1>
67. Shayne P, Gallahue F, Rinnert S, Anderson CL, Hern G, Katz E. Reliability of a core competency checklist assessment in the emergency department: the Standardized Direct Observation Assessment Tool. *Acad Emerg Med.* 2006;13(7):727-32.
<https://doi.org/10.1197/j.aem.2006.01.030>
68. LaMantia J, Kane B, Yarris L, et al. Real-time inter-rater reliability of the Council of Emergency Medicine residency directors standardized direct observation assessment tool. *Acad emerg med.* 2009;16 Suppl 2:S51-7. <https://doi.org/10.1111/j.1553-2712.2009.00593.x>
69. Dattner L, Lopreito JO. Introduction of a direct observation program into a pediatric resident continuity clinic: feasibility, acceptability, and effect on resident feedback. *Teach Learn Med.* 2010;22(4):280-6. <https://doi.org/10.1080/10401334.2010.512545>
70. Hamburger EK, Cuzzi S, Coddington DA, et al. Observation of resident clinical skills: outcomes of a program of direct observation in the continuity clinic setting. *Acad ped.* 2011;11(5):394-402. <https://doi.org/10.1016/j.acap.2011.02.008>
71. Zimmer KP, Solomon BS, Siberry GK, Serwint JR. Continuity-structured clinical observations: assessing the multiple-observer evaluation in a pediatric resident continuity clinic. *Peds.* 2008;121(6):e1633-45. <https://doi.org/10.1542/peds.2007-2637>