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RESEARCH ARTICLE

THE CLINICAL TEACHER

Do summative entrustment decisions actually lead to entrustment?

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Abstract

Background: Entrustable professional activities (EPAs) were introduced across Dutch postgraduate programmes between 2017 and 2019. We aimed to understand the extent to which residents actually were granted increased clinical responsibility upon receiving summative entrustment for an EPA, a critical feature of its use.

Methods: A survey study was conducted among all Dutch residents who started dermatology training in 2018 and 2019 and all Dutch dermatology programme directors (PDs). We chose an EPA designed for early entrustment in residency (identification, treatment and care regarding a simple dermatological problem in the ambulatory setting). The survey contained two hypothetical clinical cases that aligned with this EPA. The questions were aimed to determine whether and when residents should request supervision. Similar questions were posed to PDs.

Findings: Twenty four residents (56%) and 19 PDs (79%) completed the survey. The majority of the residents (65%) and PDs (63%) confirmed that competent dermatology residents (level 4) are generally allowed to perform EPA1 unsupervised, particularly when seeing patients from GPs. However, still a substantial proportion of the level 4 residents, working in University Medical Centers (36%) indicated that they had to request supervision in the assessment of these patients. For 2nd opinions, the results were typically the opposite.

Discussion and Conclusion: This study demonstrated that, at least in one specialty and one country, the introduction of EPAs and entrustment decision making procedure generally led to the intended autonomy of the resident.

1 | INTRODUCTION

Entrustable professional activities (EPAs) are quickly becoming a new standard in competency-based education in various health professional education programmes,[1–5] while several questions of implementation still remain. One such question concerns the consequences of summative entrustment decisions for EPAs. These pertain to the readiness of trainees for autonomy, defined in terms of levels of supervision, ranging from 1 (observe only) to 5 (provide supervision to juniors), with level 4 being the critical stage of 'readiness for unsupervised practice'.[6,7]

EPAs serve to operationalise competency-based medical education (CBME). EPAs are units of professional practice that can be entrusted to a trainee once they have demonstrated to possess the required competencies. The core asset of CBME is that trainees are being qualified for clinical practice as they demonstrate to meet the standards of quality and not simply because of the time they have been in training.[6,8] By breaking down the practice of a specialty into

EPAs that can reasonably be overseen and assessed, there is more certainty that graduates have mastered each relevant unit of professional practice. Instead of qualifying trainees for the whole breadth of a specialty at the end of training, qualification per EPA at the moment the trainee has sufficient skill and experience allows for the experience of full responsibility while still formally in training.[8]

Residents in training typically act under the supervision of a specialist with final responsibility for the quality and safety of the care for patients attended by trainees. Fuelled by concerns over patient safety, some countries have severely restricted residents' delegated responsibilities in the past decades. This 'seniorisation' of patient care in teaching hospitals may not only serve patient safety but also interfere with the trainee's opportunity to build experience.[9–12] Some programmes adopt CBME formally, but not its core purpose, that is, moving from a fixed-length-variable-competence length programme to a fixed-competence-variable length programme.[8] A goal of EPAs in residency programmes is a step-wise development of progressive resident autonomy. Supervising clinicians have the authority to determine when, and to what extent, trainees are allowed to work with or without their supervision. This would also allow them to deviate from a general CBME policy and to make 'entrustment decisions' on paper without increase of autonomy in practice.[13]

'Seniorisation' of patient care in teaching hospitals may not only serve patient safety but also interfere with the trainee's opportunity to build experience.

EPAs were introduced in all postgraduate medical training programmes in the Netherlands between 2017 and 2019; for dermatology in 2019.[2,14] In this study, we aimed to understand whether the introduction of EPAs and entrustment decision making had led residents to being truly allowed to work unsupervised when deemed ready. Specifically, for this implementation question, we focused on residents and supervising clinicians in the specialty of dermatology.

Have EPAs and entrustment decision making led residents to being truly allowed to work unsupervised when deemed ready?

BOX 1 Case descriptions and answer options used for residents ('… you …') and supervisors ('… a resident …' or '… the resident …')

Case 1.

You/A resident (granted level 4, EPA1) see(s) a new patient at the outpatient clinic. It is a referral from a general practitioner regarding patient with actinic keratosis. You/The resident see(s) scattered mild multiple actinic keratoses in the face and you/the resident have/has no suspicion of a skin cancer. You/The resident find(s) treatment with topical 5-flurouracil appropriate. What should you/should the resident do in this situation?

Case 2.

You/A resident (granted level 4, EPA1) see(s) a new patient in the outpatient clinic at a university medical center (UMC) with mild acne. It is a referral from a dermatologist working in a community hospital, requesting a second opinion. The dermatologist in the community hospital intended to start topical treatment but the patient believed that the acne was caused by a food allergy. The dermatologist was unable to convince the patient that this was not the case. Therefore, the dermatologist referred the patient to the UMC. You/The resident see(s) very mild acne. After explaining again that the diagnosis is correct and that the acne is not caused by food allergy the patent accepts topical treatment. What should you/should the resident do in this situation?

Answer options for both cases:

a) You/The resident must ask for supervision because in your setting it has been agreed that all new patients must be seen by the supervisor.

b) You/The resident have/has to discuss the patient with the supervisor before you/he starts treatment. The supervisor decides self if he sees the patient or not.

c) You/The resident may start treatment independently, but you/he must take a clinical picture of the patient and show the picture and discuss the patient in the daily debriefing.

d) You/The resident may start treatment independently, but you/he must discuss the patient afterwards with the supervisor.

e) You/The resident may start treatment independently. No mandatory consultation/discussion afterwards with the supervisor is needed.A five-level scale to express a recommended level of supervision for a given EPA:

Level 1: The resident may be present but may not practise the EPA.

Level 2: The resident may practise the EPA under direct (proactive) supervision, with supervisor physically present in the room.

Level 3: The resident may practise the EPA under indirect (reactive) supervision, with supervisor not physically present but quickly available.

Level 4: The resident may practise the EPA unsupervised (the resident is competent).

Level 5: The resident may act as supervisor for others for the EPA.

All surveyed residents have received either a level 3 or 4 entrustment decision for EPA1. Answers a to d all refer to level 3 with a gradual increase in autonomy. Answer e refers to level 4 (a 'competent' resident).

2 | METHODS

An electronic anonymous survey study was conducted in 2021 among all residents who commenced dermatology training in 2018 and 2019 ($N = 43$) and all programme directors (PDs) of dermatology residencies in the Netherlands ($N = 24$), with the purpose to check whether the intentions of the new EPA-based dermatology with regard to actual entrustment in clinical practice were achieved.

The survey, in two parallel versions—one for residents and one for programme directors, with two identical, prototypical cases—was initially created by V. S. and reviewed by O. t. C. Next, the resident version was tested with a PGY2 resident, and the PD version was tested with two senior dermatology educators. After revisions, the surveys were administered anonymously using the online platform Castor EDC. A secretary, not further involved in the study, collected all residents' and PDs' email addresses. These were then imported into Castor EDC in a way that the researchers (V. S. and O. t. C.) were not able to identify participants. Next, the survey was sent to all participants. In total, we sent five reminders to boost the response. After the last reminder, we exported the results to Excel which we used for analysis.

We focused on the first EPA (EPA1) out of seven. EPA1 for all Dutch dermatology programmes is 'Identification, treatment and care regarding a simple dermatological problem in the ambulatory setting'[14] and is designed for entrustment early in residency, typically aimed at PGY1 or PGY2 trainees.[2,14] Dermatology training in the Netherlands spans 5 years, with 4 years in one of the seven University Medical Centers (UMCs) and approximately 1 year in a large affiliated teaching hospital (ATH).[2,14] The national dermatology curriculum plan provides guidelines on how to make summative entrustment decisions, and all PDs had to participate in workshops on entrustment decision making.

The survey questions included two hypothetical clinical cases that were created and reviewed by two experienced dermatologists to reflect easily recognisable clinical situations. They focused on whether and when the resident should request supervision. The questions for the PDs were similar, but they were asked what a 'competent' (level 4) resident should be entitled to do in this situation. Both cases aligned with EPA1 and were medically simple. Case 1 was a referral from a general practitioner; Case 2 was a referral from a dermatologist for a second opinion (see Box 1).

The resident version of the survey started with four questions: (1) when had they started residency, (2) were they aware of agreements and rules in the current training context about when to request supervision, (3) what is their current level of supervision granted with regard to EPA1, and (4) whether the resident was currently working in a UMC or in an ATH. The residents working in a UMC had to answer questions about both cases and the residents working in an ATH only case 1, as second opinions in the Netherlands typically imply referral to a UMC.

The PD version of the survey started with two questions: one concerning agreements and rules in their respective training centre about when residents should request supervision and one on whether the PD worked in a UMC or an ATH. The PDs in UMCs needed to answer questions about both cases and those in ATHs only about case 1. Descriptive statistics were calculated with Microsoft Excel®.

The Ethical Review Board of the Netherlands Association for Medical Education approved this study (NERB#2020.2.4). All the participants gave consent before participating in the survey.

3 | RESULTS

Of all 43 new residents who entered the dermatology training in 2018 and 2019, 24 (56%) completed the survey. Eighteen (75%) residents trained in UMCs at the time of the survey and 6 (25%) in ATHs. Sixteen (64%) had started training in 2019; 8 (36%) in 2018. At the time of the survey, 10 residents (42%) had been formally qualified at level 3 for EPA1 (ready for indirect supervision) and 14 (58%) at level 4 (ready for unsupervised practice). Four residents with level 3 had entered the dermatology training in 2018, six in 2019. Of all Dutch programme directors, 19 (79%) completed the PD version of the survey; all 7 UMC PDs (100%) and 12 of the 17 ATH PDs (71%).

To the question 'Are there rules or agreements at your department about how to deal with supervision after granting level 4 for an EPA?', 10 residents (42%) answered 'yes' and 14 (58%) 'no'. To the same question, 12 PDs (63%) answered 'yes' and 7 (37%) 'no'.

The residents' and PDs' answers regarding the cases are summarised in Table 1. For referrals from GPs (Case 1), 65% of level 4 qualified residents (55% in UMCs and 100% in ATHs) were allowed to perform EPA1 unsupervised, according to the residents' answers. The PDs confirmed this finding with 63% (71% in UMCs and 59% in ATHs) agreeing. Four (36%) of the level 4 qualified residents in UMCs said that it was still mandatory in their context to ask for supervision (answers a and b). Two (18%) said that the supervisor had to see the patient (answer a) and 2 (18%) that they had to consult the supervisor before deciding upon treatment (answer b). One (8%) PD, in an ATH, indicated that mandatory supervision (answer a) was required for referrals from general practitioners (GPs, a term often used for family physicians). According to the other PDs, 32% (29% from UMCs and 33% from ATHs) answered that only post hoc review was needed (answer d).

TABLE 1 Residents' and PDs' answers to the survey questions about the hypothetical cases.

Case 1 (referral by GP)	a[a]	b	c	d	e
Residents					
All ($N = 24$)	3 (13%)	6 (25%)	0	2 (8%)	13 (54%)
Level 3 residents ($N = 10$)	1 (10%)	4 (40%)	0	1 (10%)	4 (40%)
Residents in UMCs[b] ($N = 7$)	1 (14%)	3 (43%)	0	1 (14%)	2 (29%)
Residents in ATHs[c] ($N = 3$)	0	1 (33%)	0	0	2 (67%)
Level 4 residents ($N = 14$)	2 (14%)	2 (14%)	0	1 (7%)	9 (65%)
Residents in UMCs ($N = 11$)	2 (18%)	2 (18%)	0	1 (9%)	6 (55%)
Residents in ATHs ($N = 3$)	0	0	0	0	3 (100%)
PDs					
All ($N = 19$)	1 (5%)	0	0	6 (32%)	12 (63%)
UMCs ($N = 7$)	0	0	0	2 (29%)	5 (71%)
ATHs ($N = 12$)	1 (8%)	0	0	4 (33%)	7 (59%)
Case 2 (2nd opinion)	**a**	**b**	**c**	**d**	**e**
Residents at UMCs					
All residents ($N = 18$)	6 (33%)	9 (50%)	0	1 (6%)	2 (11%)
Level 3 residents ($N = 7$)	3 (43%)	4 (57%)	0	0	0
Level 4 residents ($N = 11$)	3 (28%)	5 (45%)	0	1 (9%)	2 (18%)
PDs at UMCs					
All PDs ($N = 7$)	1 (14%)	4 (57%)	0	0	2 (29%)

[a]a = must ask a supervisor to see the patient; b = must discuss case with supervisor prior to attending the patient; c = may initiate treatment but must take a picture of the lesion for a team discussion same day; d = may treat patient unsupervised and debrief with a supervisor; e = may treat patient unsupervised; consultation nor debrief required (see Box 1 or more elaboration).
[b]UMC = University Medical Center.
[c]ATH = affiliated teaching hospital.

For second opinions (Case 2), the results were notably different. Of the 11 residents qualified at level 4 for EPA1, 73% ($N = 8$) indicated that asking for supervision was still mandatory. Three (28%) indicated that the supervisor had to examine the patient (answer a – see box 1) and five (45%) that they had to consult the supervisor before deciding to treat (answer b – see box 1). Two residents (18%) acknowledged to be allowed to practice unsupervised, and one (9%) was expected to ask for post hoc supervision. The answers of PDs were quite similar, with 71% regarding supervision as mandatory. One PD (14%) indicated that a supervisor should see the patient (answer a) and 4 (57%) that residents would have to consult the supervisor before deciding upon treatment (answer b). Two PDs (29%) indicated that the residents were allowed to practice unsupervised.

4 | DISCUSSION

Thoughtful summative entrustment decisions are meant to qualify a trainee for a level of supervision. Data gathered from the majority of the residents (65%) and PDs (63%) participating in this survey confirmed that 'competent' dermatology residents in the Netherlands (i.e., those granted level 4) are indeed generally allowed to work unsupervised, as intended in national PGME curricula.[2] This finding held particularly true for patients referred by GPs (Case 1) and for the example of dermatology EPA1 that we investigated. It is striking, however, that four (36%) level 4 residents working in UMCs indicated that they were still obliged to have a supervisor participate in the assessment when the patient was referred by a GP. This could be a local or contextual phenomenon, and we could not verify whether these residents trained in the same UMC. It is also striking that this was not reflected in the answers of the UMC PDs, 71% of whom confirmed that level 4 residents are actually allowed to practice EPA1 unsupervised, regularly (29%) with minimal control afterwards (answer d). We cannot fully explain this difference between the residents and the PDs. We only surveyed PDs and did not include all supervisors at the training centres, which leaves the possibility that some supervisors differ in opinion with the PD.

'Competent' dermatology residents in the Netherlands (i.e., granted level 4) are indeed generally allowed to work unsupervised.

If we look at Case 2, we find a different picture. It appears that consultation with the supervisor is generally considered mandatory when a resident sees second opinion patients. This is reflected in both the answers of the residents and the PDs, but for level 4 residents, the supervisor generally does not need to see the patient personally.

Based on this study, we can conclude that most of the dermatology PGME programmes in the Netherlands have implemented the EPAs as intended with actual responsibility for the residents and autonomy after entrustment decisions. This is true when residents see patients directly referred by GPs (general practitioners or family physicians), but less so when they see patients who have previously seen a dermatologist and ask for a second opinion. Here is where ATHs and UMCs differ, because such referrals are always directed to UMCs.

However, at least one training centre seems not to give residents the opportunity to practice unsupervised, even if declared ready for level 4 autonomy (for Case 1), which might be caused by a different medico-legal valuation. Given the national consensus on EPAs for dermatology, it seems important that PDs in all training centres achieve consensus on a common level of autonomy following summative entrustment decisions, both for patients referred directly by GPs and for second opinion patients. Here is where a national faculty development effort might be useful for a thorough understanding of CBME, EPAs and entrustment decision making. This has been done in the past decade,[2] but a sustained effort remains useful.

National faculty development effort might be useful for a thorough understanding of CBME, EPAs and entrustment decision making.

We found it peculiar that four residents (40%) who were qualified only at level 3 (indirect supervision) seemed nevertheless allowed to perform autonomously, with clinical oversight only. Fifty eight per cent of the residents who entered the training in both years had been declared competent (level 4) for EPA1 and 42% not. Four of the residents who were not qualified at level 4 for EPA1 had started in 2018, that is, were PGY3 residents at the time of the survey. This was surprising, because the expectation, according to the curriculum, is that a summative entrustment decision for EPA1 should be easily achievable within the first 2 years. We do not know whether these residents were really not good enough, that is, that our results simply reflect time-variability and individual differences, or whether the PDs and supervisors failed to formalise summative decisions administratively.

We acknowledge limitations of this study. Despite a reasonable response rate, especially among the PDs, an inherent limitation of this study is the focus on one, small, specialty, in one, relatively small country. However, our conclusions do not require generalisation from a small sample, because we included the full population. As EPAs were only recently introduced, we cannot make historical comparisons, and estimating the stability of our findings across time would require a repetition of the study after some years. We also cannot extrapolate our findings to other PGME disciplines in the Netherlands or beyond. We decided to perform a short quantitative study, to stimulate a high response. This design does not allow to comment on the reason behind the answers. A qualitative or mixed methods design could have given more information. However, a qualitative study only would not have allowed any generalisations about the state of implementation of entrustment decisions making in dermatology training across the country. Our investigation was an implementation study. Not all recommended steps for survey design,[15] including a literature study to define a construct of interest, were deemed necessary.

What is the significance of our report? The use of EPAs and entrustment decision making is intended to operationalise CBME, by better defining what a competent physician is expected to do, by deliberately incorporating progressive autonomy in these activities when residents are ready, and thus by individualising workplace curricula. The full potential of entrustment decisions can only be achieved if they have consequences for the autonomy and responsibility of trainees in health care and are not limited to decisions just about progression to a next phase of training, which in some contexts is the case.[16] While medico-legal tensions may arise, in this study, we showed that, at least in one programme and one country, the purpose of using EPAs in this sense has, at least partly, been achieved.

Full potential of entrustment decisions can only be achieved if they have consequences for the autonomy and responsibility.

AUTHOR CONTRIBUTIONS

Vigfús Sigurdsson: Conceptualization; data curation; formal analysis; investigation; project administration; writing—original draft. **Olle ten Cate:** Conceptualization; supervision; writing—review and editing.

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CONFLICT OF INTEREST

The authors have no conflict of interest to disclose.

ETHICAL APPROVAL

The Ethical Review Board of the Netherlands Association for Medical Education approved this study (NERB#2020.2.4).

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