Getting the best out of case-based discussions (CbDs) — tips for trainers and trainees

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Introduction

Case-based discussion (CbD) is an instrument used to assess doctors during foundation and specialty training. The purpose of this article is to guide paediatric trainers and trainees through the process of completing the CbD in a way which maximizes the benefits of the session for all.

The UK Foundation Programme uses CbD in conjunction with other tools (mini-case examination or mini-CEX, directly observed procedures or DOPs, and multisource feedback or MSF), as workplace-based assessments (WPBAs) to record a doctor's progress through the program. This approach has been continued into specialty training: paediatric specialty trainees will need to complete 4, 8 and 6 CbDs in ST1-3, ST4-5 and ST6-8 (levels 1, 2 and 3), respectively. Although these represent minimum target numbers to reach, the tool is formative rather than summative and has been validated for use in this context.

Case-based discussion is an opportunity for an assessor to examine a trainee's approach to clinical reasoning, diagnosis, decision-making, medical knowledge and patient care based on a clinical case managed directly by the trainee. It can also enable discussion of the ethical and legal framework of practice. It allows trainees to discuss why they acted in the way they did.

Paediatric trainers need to know how to get the best out of CbD not only because of the paediatric specialty trainees passing through paediatric departments, but also because of the specialty's role in training foundation doctors, GPs and other specialty trainees in their early years.

Trainees need to know how to get the best out of CbD so that they can fulfil their learning objectives and acquire the competences necessary for their relevant training year.

If the trainer and trainee have a good understanding of the purpose of the CbD and clear aims and expectations for the assessment process, it will end with the trainee having reflected on the approach they took, with formative 'suggestions for development' and an agreed action plan. A good CbD will naturally create the opportunity for focused further assessment, perhaps involving a future CbD which will show how they have addressed any suggestions from this session. The assessor who should be $\geq$2 years senior to the trainee will gain an insight into the trainee's strengths and weaknesses in case management which may be useful as a basis for further learning plans or teaching.

The process of completing the CbD can be considered as a series of phases.

Phase one: planning the session

CbDs need to be booked in advance and should not be completed retrospectively. You need a mutually convenient time and venue where neither party will be disturbed. The trainee needs to collect a choice of cases whose complexity reflects their stage of training and experience, and should be prepared to discuss any one of these.

Although the trainee may be tempted to choose notes which reflect situations which they think they handled particularly well, more useful cases may be ones which the trainee found more challenging as there may be more scope for discussion, advice and suggestions for future learning. Paediatric trainees at level 2 should cover: breathing difficulty, febrile illness, diarrhoea, abdominal pain, seizures and rash. Paediatric trainees at level 2 should cover: general paediatrics, neonates, and community paediatrics in both ward and clinic-based settings. Paediatric trainees at level 3 should be competent at dealing with complex issues.

Over the trainee's attachment in a department half the cases should be selected by the trainee and half by the assessor.

Phase two: setting the scene

An opening question from the trainer may explore why the trainee chose to bring a particular case and what they hope to achieve from the session. In this way, the trainer may avoid the obvious answer that the trainee needs a CbD form completing and is hoping to 'score' highly and can also check that the trainee has not brought the case which distressed them and may be more suitable as a counselling session. The opening moments of the meeting can thereby be used to establish the CbD as more than a form-filling exercise and the case notes remain the centre of the discussion.

Phase three: the main discussion

This should be focused on an actual entry in the notes, often an initial clerking or ward round/clinic consultation and should explore the trainee's thought processes. The discussion is an opportunity to explore clinical reasoning and decision-making: it is not just a knowledge test (though it may be used to discuss application of medical knowledge in relation to patient care) nor an assessment of the quality of the entry in the notes (though issues may come out which relate to record keeping) (Table 3).

Breaking the entry itself down into segments may help to focus discussion.

Differential diagnosis

A CbD focusing on the initial clerking can encourage trainees to explain their approach to problem formulation and an explanation of how they refined the diagnosis with further questioning or examination. There will probably be a combination of

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information from the history, examination and clinical knowledge. The trainee may be asked how confident they were in their diagnosis. Many trainees may be confident in obtaining clinical information from history and examination but may be hesitant in formulating a problem list and differential diagnosis from this information.

Focusing on an entry in a review ward round note, the trainee can explore how they confirmed or refuted proposed diagnoses and how a plan for investigation may have been formulated.

Outpatient notes can be used to explore and assess how trainees have approached ongoing disease management, elucidating and solving further problems as a disease evolves.

In all these scenarios, alternative diagnoses may be discussed and how the history and examination may give further information. Less likely but more serious diagnoses may also be considered and the implications of looking for or of missing these.

The trainee could be asked to reflect on how they shared their findings with the patient and family.

As the notes are used as a focus for the discussion, the assessor will observe the trainee's medical record keeping and see how findings have been obtained and interpreted to clarify the differential diagnoses.

Investigations and further elucidation of diagnosis

Next, the list of investigations and/or referrals for specialist opinion. Sometimes no further investigation or referral is required: how was this decision reached, how confident was the trainee about it (sometimes this part of the CbD is informed by knowledge of subsequent developments) and how was it explained to the patient and their family? When further investigations were thought to be necessary, what information did the trainee hope to glean from these and how and by whom were investigations arranged — were they to be performed as an inpatient or would outpatient investigation be more appropriate, and why? What action would be required depending on the results of any tests carried out? Who had the responsibility of collecting and interpreting test results? What information was given to families? If there was discussion with or referral to others, what further information did the trainee hope to gain by these actions?

Management

The trainee may have followed or chosen not to follow ward guidelines or protocols. This is an opportunity to discuss such guides and how they have been used. If they have been disregarded, what was the reasoning behind this (and was this recorded in the notes — if so, in what way?) If guidelines have not been used, could the trainee make any recommendations how such guidelines could be made more user-friendly or how more up-to-date approaches might require review of current protocols?

How did the trainee decide which treatments to use and how to give them (fluid infusions, antibiotics, nebulizers etc.). If they were relying on others to prescribe and give medications, have they checked that their instructions are clear? Did they check that the drugs were given in a timely fashion (for example, with severe infections where rapidity of administration may matter)? Was treatment appropriate and safe? Did the trainee consider drug interactions? Did they consider whether or not the drugs were licensed for this particular use, did they refer the to British National formulary for Children (BNFC)? Have they used opportunities to show more junior colleagues how prescriptions for more complex medications, infusions etc. should be written. Are they aware of possible alternatives to what they have prescribed? Is prescribing safe and precise? Were decisions discussed with patients?

Communication

Can the assessor (or anyone else) tell from the notes what communications have been undertaken and with whom? These may include communications with patients and parents and how these interactions were recorded in the notes. For example, did the trainee make use of extra information for parents in the form of leaflets, practical demonstrations, explanations as to why particular medications are being used, what effects and side effects they may have and what the intended duration of treatment will be? Were patients and families satisfied? Did they have any concerns about the chosen treatment which might affect adherence to treatment?

Other discussion topics

Further discussion may include topics such as audit, ethics and risk assessment, involvement of the multidisciplinary team, clinical governance and the ethical and legal framework for practice.

Some trainees may choose to cover areas such as stress management, or any factors which made the situation more complex or difficult to cope with. The assessor should be aware, however, that should discussion become difficult or distressing for the trainee, then the assessment might need to be abandoned while counselling supervenes.

Phase four: feedback

Feedback should be provided from trainer to trainee — and vice versa. This is a part of the process which many trainers and trainees find difficult. A framework for giving feedback can improve this. An adapted version of Pendleton's rules can guide the feedback process and ensure that it is honest, constructive and comprehensive (Table 1).

Adapted Pendleton's rules

- Clarify any points of information/fact;
- Ask the learner what s/he did well: ensure that they identify the strengths of the performance (do not stray into weaknesses);
- Discuss what went well, adding your own observations, keeping to the strengths;
- Ask the learner to say what they could have done better and what they would do differently next time;
- Discuss what could have been done better, adding your own observations and recommendations for what could be done differently next time;
- Ask the trainee what s/he has learned;
- Agree targets for further learning.

Table 1

In some WPBAs, the trainee also has an opportunity to comment on the trainer. This feedback should also be given using Pendleton rules.

Phase five: filling in the CbD forms

Trainers and trainees tend to get sidetracked by the forms which have to be completed. One remedy for this is to leave logging into the forms to the end of the session. The trainer should aim to keep a handwritten form as a record of any discussion if a computer is not available when required.

The discussion so far will have focused on why the trainee acted as they did. Possible alternatives may have been discussed. The trainee may have been prompted to raise issues which affected their decision-making, guidelines which made their life easier or more difficult, situations which they may handle differently if they met them again (Table 2).

If the session has followed the above approach, all the necessary information for completing the forms will now be available to the trainer and trainee. The form shall be filled in immediately after the session and not delayed. The trainer can ask the trainee to provide one sentence for the brief clinical summary of the case — a useful exercise which many find challenging. The initial grading boxes allow the trainer to grade the trainee on a numerical scale on six main areas (medical record keeping, clinical assessment, investigations and referrals, management of challenging and complex situations, risk assessment and treatment). All ratings are on a 1–6 scale with an 'unable to comment option' as it is recognized that assessors may not be able to make a judgement about all the ePAEDCbD areas for every case they observe. The RCPCH has clear assessment standards in relation to each of the six categories, which will enable the trainer to give a fair and appropriate mark for each (including the 'unable to comment' option). WPBAs are formative and it is to be expected that trainees will receive low marks at the beginning of a year and will progress to higher marks towards the end of the year of training. This way their achievement is mapped in a competency framework. As trainees progress through the RCPCH competence levels, it would be expected that initial assessments will guide their learning to allow them to progress. The grades on the CbD should reflect this progression. There is also the opportunity to document any concerns about the trainee's knowledge base and another box for concerns about trainees probity, ethical, personal and professional practice (which should be rarely used).

Phase six: action plans

The final three boxes of the assessment form now consolidate what the trainer and trainee can take away from the CbD — this is not a box-ticking exercise but a tool which the trainee can use to inform their personal development plan and to shape their clinical practice. These boxes are often underutilized and are consequently less valuable when the portfolio is being reviewed by trainee or assessor.

The first box requires completion with 'Anything especially good' — positive aspects of the particular case which has just been discussed can be highlighted and used to reinforce examples of good clinical practice.

The 'Suggestions for development' box — where the CbD changes from form to tool — is where points raised during the session turn into

Tips for a successful CbD

Trainees	Trainers
Read the instructions and be aware of the purpose of the session	Read the instructions and be aware of the purpose of the session
Ask the assessor and book the session in advance	Set aside adequate time
Bring a choice of cases, related to your learning needs	Trainer to choose 50% of cases for discussion, trainee other 50%
Don't assume complex cases are best	Select cases most appropriate to trainee's level
Don't choose cases which have been particularly distressing for you (these should be discussed in an alternative setting)	Avoid cases where trainee was distressed (more suitable for counselling)
Expect to reflect on cases	Ask open questions, encouraging reflection
Be prepared to discuss the basis of your reasoning in case management and diagnoses	Test the trainee's ability to analyse a case and explore their decision-making rather than knowledge alone
Be prepared to discuss matters raised whilst looking at the case	Don't just concentrate on the quality of the record
Stay focused on the CBD	Do not diverge from the CbD. If other issues are raised, consider addressing these at a later date
Seek and prompt constructive feedback (Pendleton's rules)	Lead on using Pendleton rules
Feed back honestly and constructively about how you feel the session went	Make sure feedback is honest and constructive
Approach CbD as an opportunity to improve your clinical practice, and mapping progress throughout an attachment: low CbD scores can direct learning	Use CbD formatively: complete the form as soon as possible after the end of the session
Use the experience gained from previous CbDs to maximize the usefulness of subsequent sessions	Do use feedback from trainees to guide future CbD sessions
Don't leave doing WPBAs until the end of an attachment	Encourage early booking of WPBAs

Table 2

Possible questions

- Talk me through the thoughts that were going through your mind when you wrote this management plan;
- How would the results of the investigations you ordered help you work out what was going on and what you needed to do?
- Tell me about how you used the ward/National guidelines to help plan management; were there any aspects which did not fit with this case?
- Talk me through how you decided to prescribe XX and what alternatives you considered?
- You recorded that you asked X for their advice. What specifically did you want to discuss, why was it important, how did their advice help and what did you learn from it?
- How did you share your thoughts and approach with the patient and family?
- Did this case raise any ethical/child protection/multidisciplinary team/clinical governance issues?

Table 3

constructive ideas for enhancing future practice and direct further learning. Ideally, future CbDs should reflect changes or improvements made following previous ones so one CbD may lead into the next and the trainee can continue to grow and improve.

The trainer and trainee should complete the 'Agreed action' box by outlining how the 'suggestions for development' can be implemented and how the trainee will be able to demonstrate progression not only in the workplace but in future assessments.

Final points

The session is now drawing to a close and the form has been completed. Questions will have been raised, ideas challenged and the trainee will use this case to improve their clinical practice. Areas of their knowledge which can be improved or updated will have been highlighted with suggestions as to how they may do this. The trainee should approach their next assessment with expectations and goals. By the time the Annual Review of Competence Progression (ARCP) takes place, their eportfolio should demonstrate not a selection of unrelated assessments but a map of development and improvement achieved in the last 12 months.

For the most instructive and constructive e-assessment, the key is to temporarily forget about the forms, concentrate on the case and the issues it raises, enjoy discussing how things might be done, explore clinical thinking and its relevance to daily practice. ◆

FURTHER READING

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