# Improving teaching within veterinary clinical oncology

Maja Arendt

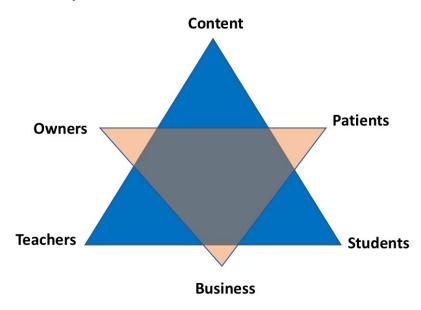
Department of Veterinary Clinical Sciences, University of Copenhagen

#### Introduction

Veterinary clinical teaching includes many challenges that are not normally encountered in classroom teaching.

Due to the circumstances around clinical teaching there is an extra layer upon the didactical triangle, which needs to be considered in the teaching and learning situation. In addition to the interaction between the teacher, the student and the learning content, there are also other factors such as the patient, the client (patient owner) and the hospital business, which need to be taken into account (see figure 1.1). These additional factors complicate planning of, and control over the teaching situation, as the teacher cannot control which clinical cases come into the clinic, or how the owner(s) or animal will respond to a teaching situation. As the hospital runs as a business there are elements that need to be taken into account, to avoid that the teaching situation damages the relationship between the client and the teacher, or the hospital. In the ideal setting the student's engagement in the clinic should "maximize the efficiency of the clinical practice and optimize the students educational experience, whilst not harming the relationship between the care provider and the client' as described by Simon et al., 2003.

#### 4 Maja Arendt



**Fig. 1.1.** Interactive factors needed to be considered for clinical teaching. The classical didactical triangle is illustrated together with an additional layer of factors which are needed to be taken into account for clinical teaching.

This project wanted to investigate how the clinical teaching in oncology could be improved in order to not only enhance the learning experience for the students, but also to take the other factors in the equation into account. The reason for wanting to improve the teaching on this rota is that the patient flow, the patient material and the individual teacher's preparation are variable between student groups. As this is the last clinical course before the students are qualified as veterinarians, there are certain essential skills that the students should be able to perform when they graduate which is known as day 1 competences and hence there are some essential skills that should be practised or discussed during the rotation.

**Brief description of course:** The course Advanced Companion Animal Track is a 26.5 ECTS points course. The workload for the student in the course is 460 hours of practical experience and 269 hours of study time or preparation. The course incorporates different clinical specialties

in the University Hospital for Companion Animals in Copenhagen and also includes an external rotation period in private small animal practices. Around 60 students take this course each year. The part that will be discussed in this assignment, relates to the clinical rotation in veterinary clinical oncology which includes 16 hours of clinical teaching for each group of students divided into groups of 3-4 students at a time.

There are general intended learning objectives for the course which are divided into knowledge, practical skills and competencies. The intended learning goals cover the course as a whole and are therefore very broad, leaving the students a bit uncertain with regards to what they are expected to learn in the different disciplines.

### Aim of this project

To improve and standardise the clinical teaching in veterinary oncology based on information gained from questionnaires filled out by students recently completing this course, pedagogical principles and dialogues with the clinical teachers.

#### Materials and method

An anonymous multiple-choice questionnaire was distributed by email to 30 students on the day of completion of the course. The full list of questions for the questionnaire and the possible answers is shown in appendix A. The questionnaire was sent out by email and two follow up reminders were sent out to increase the completion rate. The questionnaire was left open for 10 days after which it was closed for further participants. An identical questionnaire was then passed to all teachers on the oncology rotation and they were asked to answer what they thought the majority of students had replied, to investigate if the teachers' and students' interpretation of clinical caseload, teaching content and understanding of the subject was comparable.

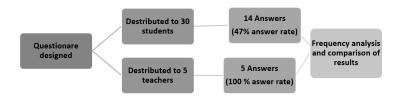
A total of 9 multiple choice questions were formulated covering subjects relating to the preparation material for the course, the intended learning objectives, the caseload in the clinic, alternative preparation methods, teaching subjects and the ideal clinical rotation design. One question was left open for students to comment on further recommendations for how the clinical rotation could be improved.

#### 6 Maja Arendt

Based on the answers from the students and the teachers of the course, summary statistics were made to mainly look at differences between the teachers' anticipation of student answers as well as particular areas were answers from the students indicated that there could be room for improvement.

#### Results

In total, 14 out of 30 students completed the questionnaire whilst 5 out of 5 teachers completed the questionnaire as seen in the flowchart figure 1.2. All data was summarized by analysing the frequency of each answer within the student and the teacher group as seen in appendix A.



**Fig. 1.2.** Illustration of the questionnaire distribution and completion rate. The total list of questions and answers is illustrated in appendix A.

### **Interpretation of results**

Based on the questionnaire answers from the students there was suggestive evidence for elements in the rotation which could be improved or altered.

From the answers from question 1 regarding the preparation material for the rotation, it was evident that 43% of the students felt that the preparation material was either inadequate (29%) or they didn't read it (14%). Likewise, from the answers in question 2, the intended learning objectives for the rotation were either unclear (14%) or where not read (21%). This suggest that there is room for improving the background information for the rotation making, and making it more appealing to read.

With regards to the clinical caseload; question 3, then 57% of the students felt that the caseload had been adequate whilst 29% and 14% felt that it was too high or too low respectively. When asked about whether the students would prefer as high a caseload as possible versus fewer cases with more thorough theoretical discussions in question 9, the majority 71% would prefer fewer selected patients with time for more theoretical background for each case. From these answers, it was evident that individual students been exposed to different case flows during their rotation, however that providing a few good teaching cases with time for going through theoretical knowledge and pathogenesis would be preferred by the majority rather than being exposed to a higher case flow.

The parallel running clinical rotation in cardiology provides the students each year with an information package, which includes details about learning objectives, clinical case examples, examples of paraclinical test results and a short multiple-choice assignment. This information is used for student preparation but also used as case material during the clinical rotation in order to discuss important clinical presentations, which might not have been seen in the clinic that day. In this sense, the theoretical material is used to substitute clinical cases in a controlled manner providing the teacher with more control over the teaching situation. The oncology rotation has abstained from providing similar material, as the teachers have thought that the students would not appreciate it, due to potentially extra preparation time. From the answers in question 4 it is evident that only 20% of the teachers thought the majority of students would be interested in this kind of material whilst 80% answered that they though the majority of students would not appreciate a detailed information package. When looking at the figures from the student answers, this shows the opposite, with 86% of the students replying that a more detailed information package would be great and improve preparation whilst only 14% reply that they think this additional material will require too much preparation time. This question is a good example of teachers thinking that they know what the students want, however when asked, then the answer is quite different, which emphasizes the importance of making a student-survey.

When asked about the contents of the clinical teaching in question 7, the four subjects of highest interest for the students where common tumour types, prognosis, grading and staging procedures. Interestingly, when looking at what the teachers thought the students would be interested in, common tumour types, sensitive conversations with owners, staging and grading procedures came as the 4 subjects highest on the list. In this

example, there seemed to be relatively good alignment between what the teachers thought that the students wanted to learn more about and what the students actually answered that they wanted to learn more about, with some exceptions. Though teaching should not be designed solely based on what students want, then this questionnaire was sent out, just as the student finalized their clinical rotation before becoming veterinarians and hence this likely represents the skills that they feel they are missing, when they start working as small animal practitioners, and hence the request should be considered when planning the teaching. When asked specifically about discussing ethical dilemmas in the teaching in question 6, then the students divided equally into two groups of students who felt it would be relevant to discuss ethics more and who felt that ethics was discussed enough elsewhere during their veterinary degree.

Question five asked the student about whether oncology was mostly about chemotherapy and hence mostly related to specialist clinics or whether it was more about diagnosing and staging and hence very relevant to first opinion practitioners. Unfortunately, only 64% of the students answered the latter. Around 50% of geriatric animals will develop cancer and therefore oncology is a very relevant subject for any small animal veterinary practitioner. Ideally all students should feel that the subject would be relevant for clinical practice, and hence there should be more focus on the students understanding what skills they are learning, and relating this to general practice. Question eight asked the students if they were ready to handle oncological patients after the clinical rotation. None of the students felt they could do this independently however 79% felt they could do this with the assistance of existing literature. Twenty-one percent felt that they were not ready to handle oncological cases. Ideally 100% of students should feel ready to approach oncological patients after the course.

In general, the teachers' anticipation of the student answers was relatively well in alignment with the students' answers, with a couple of exceptions as seen in appendix A.

## Conclusion drawn from the questionnaire

The conclusion from the questionnaire results was that providing a more detailed information package for the clinical rotation including well defined intended learning objectives, practical information and theoretical cases is sought by the students. There should be focus on applicable skills and the

students understanding the clinical work. Based on the answers from this questionnaire and taking base in examples from literature on case based learning and problem based learning (Irby, 1994; Krogh et al., 2015; Krogh & Wiberg, 2015) it was decided to make improvements to the clinical rotation with the aim to improve teaching for the students whilst also easing the work for the clinical teachers.

## Improvements made to this course based on the findings in the questionnaire which will be implemented in the clinical rotation fall 2019

#### Improved course information and teaching information on Absalon

- Description of the clinical rotation.
  - Defined intended learning objectives for the clinical rotation (which are within the frame of the overall course description).
  - Clear time table describing the different planned practical activities for the rotation each week.
- Theoretical oncology cases for discussion of most common tumour types, staging and grading schemes, paraneoplastic syndromes, evaluation of blood results and prognostication.
- Multiple-choice test for testing of basic knowledge. Test will be used as a discussion point between students and teachers to catch knowledge gaps, but the students will not be judged on their performance.
- Improved literature list, including updated literature on common cancers and indications for chemotherapy.

## Improved clinical supervision:

Assignment of two clinicians to the rota on teaching days to assure that
the clinician teaching has time for case discussion with the students
whilst the second veterinarian manages other clinical activities mainly
relating to chemotherapy treatment and external phone advice calls.

## Control of patient bookings:

 Increased control with regards to the number and the type of patients which are booked during student course days to assure a sufficient number of good quality cases.

### Discussion of results with teaching colleagues:

The results and implementations from this project report was discussed with two teaching colleagues from the clinical oncology teaching group. The changes suggested were welcomed as both could see the clear advantage of standardizing the teaching and making learning objectives better defined to the students. Additional case summaries and literature was suggested to be added which was implemented. The use of the multiple choice questionnaire as a discussion point with the students, was thought of as a good idea to catch knowledge gaps before the completion of the rotation. The suggested changes were thought to be able to make the teaching more similar between groups, provide more confidence to the students as well as helping the clinical teacher controlling some of the teaching content.

## Conclusions made from the assignment

The main conclusions made from this assignment were that a more elaborate ''information package'' for the rotation including defined learning objectives, time plans for set activities and theoretical case material could improve the rotation. This material is not meant to substitute the clinical cases but to compliment them. The changes to this course will be implemented in the fall 2019 and evaluations from the students exposed to this will be interpreted in the Spring 2020 to see if the implementations improved the teaching and learning situation for the students and teachers.

#### References

- Irby, D. (1994). Three exemplary models of case-based teaching. *Academic Medicine*, 1994;12, 947–953.
- Krogh, L., Stentoft, D., Emmersen, J., & Musaeus, P. (2015). Case-based learning. In L. Rienecker, P. S. Jørgensen, J. Dolin, & G. Ingerslev (Eds.), *University Teaching and Learning*. Samfundslitteratur.
- Krogh, L., & Wiberg, M. (2015). Problem-based and project-organised teaching. In L. Rienecker, P. S. Jørgensen, J. Dolin, & G. H. Ingerslev (Eds.), *University Teaching and Learning*. Samfundslitteratur.
- Simon, S., Davis, D., Peters, A. S., Skeff, K. M., & Fletcher, R. (2003). How do precepting physicians select patients for teaching medical students in the ambulatory primary case setting? *Journal of General Internal Medicine*, 2003;18, 730–735.

1 Improving teaching within veterinary clinical oncology

## A

## Questions and answers

| Teachers students percent answers answers answers when completes the sentence best: feel the information on Absalon, choose the answer which completes the sentence best: feel the information on Absalon, choose the answer which completes the sentence best: feel the information on Absalon regarding the encology specialty clinic is code. I read it all the feel that information was missing code. The code of the cod |         |         |   |
|--|---------|---------|---|
|  |         |         |   |
| Regarding the information on Abstainor, choose the answer which completes the sentence best: feel the information on Abstainor, choose the answer which completes the sentence best: feel the information on Abstainor, choose the answer which completes its extence best: feel the information on about one of the choical rotation  40 14 Cood, I read it but felt that information was missing 44 15 I did not read the material 40 18 I did not read the material 40 18 Regarding the intended learning objectives for the clinical rotation in oncology. I feel the intende learning objectives in the rotation are:  40 21 Well defined, it was clear what I needed to achieve on the rotation 40 18 Resource of the clinical rotation in oncology. I feel the intende learning objectives for the clinical rotation in oncology. I feel the intende learning objectives in the rotation are:  40 21 Well defined, it was clear what I needed to achieve on the rotation 40 21 I did not read the intended learning goals' 40 21 I did not read the intended learning goals' 40 22 I did not read the intended learning goals' 40 23 I madequate, with many different good cases which meant that I got a good insight into clinical 40 29 30 oncology 40 Adequate with tho of leve cases for me to feel that I got and insight into conclogy conclogy 40 Adequate but the cases were too similar 40 29 10 on high, we did not have enough time to go through the cases in plenary 40 29 10 on high, we did not have enough time to go through the cases in plenary 40 29 10 on high, we did not have enough time to go through the cases in plenary 40 29 10 on high, we did not have enough time to go through the cases in plenary 50 on high we did not have enough time to go through the cases in plenary 50 on high we did not have enough time to go through the cases in plenary 50 on high we did not have enough time to go through the cases in plenary 50 on high we did not have enough time to go through the cases in plenary 50 on high we did not have enough time to go through the cases in plenary |         |         |   |
| Feel the Information on Absolon regarding the encology specialty clinic is   | answers | answers |   |
| 1 lever good, I read it and felt well prequent for the clinical rotation 2 doced, I read it but felt that information was missing 3 doced, I read it but felt that information was missing 4 lever good of the prevention of the clinical rotation 4 lever good of the prevention of the clinical rotation 4 lever good of the prevention of the clinical rotation in oncology. I feel the intends learning objectives for the clinical rotation in oncology. I feel the intends learning objectives for the clinical rotation in oncology. I feel the intends learning objectives for the rotation are: 4 level defined, it was clear what I needed to achieve on the rotation 4 level as Reasonable, but it was not clear what I needed to achieve on the rotation 4 level as the clear was not possible to see what I should achieve from the rotation 4 level as the clear was not possible to see what I should achieve from the rotation 4 level as the clear was not possible to see what I should achieve from the rotation 4 level as the clear was not possible to see what I should achieve from the rotation 4 level as the seed of the se |         |         |   |
| 60 43 Social, result its first hat information was missing  10 29 Instance, and any study as preparation for the clinical rotation  40 11 did not read the material  Regarding the intended learning objectives for the clinical rotation in oncology. I feel the intended learning objectives in the rotation are:  10 21 Weld defined, it was client what invended to achieve on the rotation  40 43 Reasonable, but it was not clear what invended to achieve on the rotation  40 41 Reasonable, but it was not clear what invended to achieve on the rotation  40 41 Reasonable, but it was not clear what invended to achieve on the rotation  40 41 Instance, it was not possible to see what is hould achieve from the rotation  40 41 Instance, it was not possible to see what is hould achieve from the rotation  40 41 Instance, with many different good cases which meant that I got a good insight into clinical stream of the seed of t | _       |         |   |
| 0 29 Inadequate and not useful as preparation for the clinical rotation 40 14 Idd not read the material  Regarding the intended learning objectives for the clinical rotation in oncology. I feel the intended learning objectives in the rotation are:  0 2 12 Well defined, it was clear what I needed to achieve on the rotation 40 23 Reasonable, but it was not clear what I needed to achieve on the rotation 40 21 Idd not read the intended learning goals  10 21 The patient flow on the days it was in oncology can best be described as Adequate, with many different good cases which meant that I got a good insight into clinical 40 21 Idd not read the intended learning goals 40 21 Idd not read the intended learning goals 40 21 Idd not expect the many different good cases which meant that I got a good insight into clinical 40 27 To highly, we did not have enough time to go through the cases in plenary 40 27 To highly, we did not have enough time to go through the cases in plenary 41 The cardiology spacialty clinic has made a very detailed information package with examples of cases and clinical test results. I feel a similar approach in the oncology clinic would be: 40 Great, trouble feel better persperal and sure that I would be exposed to the most important concepts in oncology: 41 I think it would be good but that it would require too much preparation time for the students 42 I concepts in oncology; 43 I concepts in oncology if read in the concepts in oncology is mostly about treatment and chemotherapy and is therefore not relevant for first oncologicy is mostly about that it would require too much preparation time for the students 43 I think it would be good but that it would require too much preparation time for the students 44 I concepts in oncology if read: 55 I do concepts in oncology if read: 56 I do concepts in oncology if read in the read of the read in the read of the read |         |         |   |
| 1 Idea not read the material 1 Regarding the intended learning objectives for the clinical roation in oncology. I feel the intende learning objectives in the roation are: 1 Regarding the intended learning objectives for the clinical roation in oncology. I feel the intended learning objectives in the roation are: 2 Well defined, it was cent value to need to achieve on the rotation 3 Reasonable, but it was not clear what inveded to achieve on the rotation 4 Reasonable, but it was not clear what inveded to achieve on the rotation 4 Reasonable, but it was not clear what inveded to achieve on the rotation 4 Reasonable, but it was not clear what inveded to achieve on the rotation 4 Reasonable, but it was not clear what inveded to achieve on the rotation 4 Reasonable, but it was not clear what inveded to achieve on the rotation 5 Reasonable, but it was not clear what inveded to achieve on the rotation 6 Reasonable, but it was not clear what inveded to achieve on the rotation 6 Reasonable, but it was not clear what inveded to achieve on the rotation 6 Reasonable, but it was not clear what inveded to achieve on the rotation 6 Reasonable, but it was not clear what inveded to achieve on the rotation 6 Reasonable, but it was not clear what inveded to achieve on the rotation 7 Reasonable, but it was not clear what inveded to achieve on the rotation 7 Reasonable, but it was not clear what inveded to achieve on the rotation 8 Reasonable, but it was not clear what it is not reasonable in conclopy free it would be possed to the most important dements during my rotation 8 Reasonable, but it would be good but that it would require too much preparation time for the students 9 Reparding ethichs. Since many cases an include ethical dilemmas if feel 9 Reparding ethichs, since many cases an include ethical dilemmas if feel 9 Reparding ethichs, since many cases an include ethical dilemmas if feel 1 Reparding procedures 2 R |         |         |   |
| Regarding the intended learning objectives for the clinical roation in oncology. I feel the intended learning objectives in the roation are:  1  | _       |         |   |
| Regarding the intended learning objectives for the clinical roation in encology. I feel the intende learning objectives in the roation are:  1 0 21 Well defined, it was clear what I needed to achieve on the rotation 40 41 Assistantial and the second of t |         | 14      | I did not read the material   |
| learning objectives in the roation are:  0 0 121 Weld efficient, it was clear what I needed to achieve on the rotation  40 42 Reasonable, but it was not clear what I needed to achieve on the rotation  40 42 I did not read the intended learning goals  40 21 idd not read the intended learning goals  40 22 I did not read the intended learning goals  40 23 I did not read the intended learning goals  40 25 O anciology  40 14 Intended the service of the serv | Q1      |         |   |
| 40 42 Wed defined, it was clear what I needed to achieve on the rotation 40 43 Reasonable, but it was not clear what it needed to achieve on the rotation 40 21 Indeed, and a seek and a se |         |         |   |
| 40 43 Reasonable, but it was not clear what I needed to achieve on the rotation 20 14 Indequate, it was not possible to see what I should achieve from the rotation 40 21 did not read the intended learning goals 21 21 did not read the intended learning goals 22 21 did not read the intended learning goals 23 25 oncology 40 14 Indequate, with many different good cases which meant that I got a good insight into clinical andequate, with many different good cases which meant that I got a good insight into clinical Adequate. With many different good cases which meant that I got a good insight into clinical oncology 40 15 Oncology 40 27 Too high, we did not have enough time to go through the cases in plenary 33 15 Oncology spacialty clinic has made a very detailed information package with examples of cases and clinical test results. I feel a similar approach in the encology clinic would be experienced and the read would be expected to the most important cases and clinical test results. I feel a similar approach in the encology clinic would be concepts in oncology 40 0 10 Idon think it is relevant as I feit that I got through all important elements during my rotation with think it is relevant as I feit that I got through all important elements during my rotation of think it is relevant as I feit that I got through all important elements during my rotation in oncology is mostly about treatment and chemotherapy and is therefore not relevant for first oncology is mostly about treatment and chemotherapy and is therefore not relevant for first oncologies is mostly about treatment and chemotherapy and is therefore not relevant for first oncologies is mostly about disposs and workup and to a lesser degree about chemotherapy and of a therefore very relevant for first opinion practice  55 International procedures 56 International procedures 57 It would not be relevant to discuss ethics a part of the teaching 58 International procedures 59 International procedures 50 International procedures 50 International procedures 50 Interna | _       |         |   |
| 20 14 Indeequate, it was not possible to see what I should achieve from the rotation 40 21 I'dd not read the intended learning goals  The pattent flow on the days I was in oncology can best be described as Adequate, with many different good case which meant that I got a good insight into clinical advance, with many different good case which meant that I got ago dinsight into clinical advance, with many different good case which meant that I got agod insight into clinical advance, with the company of the cases were too similar  0   |         |         |   |
| 40 22 I did not read the intended learning goals  The patient flow on the days I was in oncology can best be described as  Adequate, with many different good cases which meant that I got a good insight into clinical  30 30 40 40 1 Inadequate with too few cases for me to feel that I got and insight into oncology  40 1 Inadequate with too few cases for me to feel that I got and insight into oncology  40 29 Too high, we did not have enough time to go through the cases in plenary  31 The cardiology spacialty clinic has made a very detailed information package with examples of cases and clinical test receive. I feel a similar approach in the oncology clinic would be read in clinical test receive. I feel a similar approach in the oncology clinic would be cases and clinical test receive. I feel a similar approach in the oncology clinic would be good in oncology I feel of the proposed to the most important demands of the control of this it is relevant as I felt that I got through all important elements during my rotation.  50 1 4 Inhihi it would be good but that it would require too much preparation time for the students  61 Oncology is mostly about treatment and chemotherapy and is therefore not relevant for first opinion practitioners.  62 Oncology is mostly about diagnosis and workup and to a lesser degree about chemotherapy and 64 is therefore very relevant for first opinion practice  63 In this is received in the properties of the same of the teaching of the same discussed in many other occasions and hence it is not nessessary to repeat here  64 I would like more focused teaching on  65 It would not be relevant to discuss ethics as part of the teaching  75 I would like more focused teaching on  76 I would like more focused teaching on  77 I would like more focused teaching on  78 I would like more focused teaching on  79 I would like more focused teaching on  80 I would like more focused teaching on  81 I would like more focused teaching on  82 I would like more focused teaching on  83 I would like more focused te |         |         |   |
| The patient flow on the days I was in oncology can best be described as Adequate, with many different good cases which meant that I got a good insight into clinical conclusions of the control of the co |         |         |   |
| The pattern flow on the days I was in encology can best be described as decease, with many different good case which meant that got a good insight into clinical of contrology.  40 11 Inadequate with not few cases for me to feel that I got and insight into encology.  40 29 Too high, we did not have enough time to go through the cases in plenary.  31 The cardiology spacialty clinic has made a very detailed information package with examples of cases and clinical test results. I feel a similar approach in the encology clinic would be goden clinical test results. I feel a similar approach in the encology clinic would be goden clinical test results. I feel a similar approach in the encology clinic would be goden to this in the similar paper and in the properties of creat, I would feel better prepared and sure that I would be exposed to the most important elements during my rotation.  50 1 don't blink it is relevant as I felt that I got through all important elements during my rotation.  50 1 don't blink it would be gode but that it would require too much preparation time for the students.  51 Oncology is mostly about utreatment and chemotherapy and is therefore not relevant for first opinion practitioners.  52 Oncology is mostly about diagnosis and workup and to a lesser degree about chemotherapy and 64 is therefore very relevant for first opinion practice.  53 Oncology is mostly about diagnosis and workup and to a lesser degree about chemotherapy and 64 is therefore very relevant for first opinion practice.  54 Begarding ethicks. Since many cashes an include ethichal dilemmas I feel  55 It would be relevant to discuss ethics as part of the teaching.  56 Oncology of tumors  57 Oncology of tumors  58 Oncology of tumors  59 Oncology of tumors  50 O | -       | 21      | I did not read the intended learning goals  |
| Adequate, with many different good cases which meant that I got a good insight into clinical  30 octoology  40 14 Inadequate with too few cases for me to feel that I got a good insight into clinical  40 27 Too high, we did not have enough time to go through the cases in plenary  31 The cardiology spacialty clinic has made a very detailed information package with examples of cases and clinical test results. I feel a similar approach in the encology clinic would be expected to the most important of cases and clinical test results. I feel a similar approach in the encology clinic would be expected to the most important of cases and clinical test results. I feel a similar approach in the encology clinic would be expected to the most important of cases and clinical test results. I feel a similar approach in the encology clinic would be expected to the most important of cases and clinical test results. I feel a similar approach in the encology clinic would be expected to the most important of think it is relevant as I felt that I got through all important elements during my rotation in oncology.  40 10 10 think it is relevant as I felt that I got through all important elements during my rotation in oncology is mostly about treatment and chemotherapy and is therefore not relevant for first oncologis is mostly about diagnosis and workup and to a lesser degree about chemotherapy and 6 is therefore very relevant for first opinion practice  50 100 550 it would be relevant to discuss ethics as part of the teaching  50 101 would like more focussed teaching on  60 61 Staging promodures  60 62 63 Staging promodures  60 63 64 Staging promodures  60 64 Staging promodures  60 65 Feel 65 Staging promodures  60 66 Feel 65 Staging promodures  60 67 Feel 67 Staging promodures  60 68 Staging promodures  60 69 Feel 69 Staging promodures  60 60 Feel 60 Staging promodures  61 60 Feel 60 Staging promodures  62 61 Feel 60 Staging promodur | Q2      |         |   |
| 30 occlopy 40 11 Indequate with too few cases for me to feel that I got and insight into oncology 40 29 Too high, we did not have enough time to go through the cases in plenary 41 27 Too high, we did not have enough time to go through the cases in plenary 42 28 Too high, we did not have enough time to go through the cases in plenary 43 The cardiology spacialty clinic has made a very detailed information package with examples of cases and clinical test results. I feel a similar approach in the oncology clinic would be exposed to the most important of cases, in clinical test results. I feel a similar approach in the oncology clinic would be exposed to the most important of cases, in clinical test results. I feel a similar approach in the oncology clinic would be exposed to the most important of cases, in clinical test results, it feel as developed in the proposed to the most important of the cases and cases and cases and sure that I would be exposed to the most important of the cases and the cases |         |         |   |
| 40 1st inadequate with too few cases for me to feel that i got and insight into oncology 40 0 Adequate but the cases were too similar 40 27 Too high, we did not have enough time to go through the cases in plenary  31 The cardiology spacialty clinic has made a very detailed information package with examples of cases and clinical test results. I feel a similar approach in the oncology clinic would be recommended to the cases and clinical test results. I feel a similar approach in the oncology clinic would be recommended to the most important concepts in oncology 40 0 1 don't him it is relevant as I feet that got through all important elements during my rotation 40 1 don't him it is relevant as I feet that got through all important elements during my rotation 41 think it would be good but that it would require too much preparation time for the students 42 Oncology is mostly about treatment and chemotherapy and is therefore not relevant for first oncommendation of the students of |         |         |   |
| Adequate but the cases were too similar  Ad 29 Too high, we did not have enough time to go through the cases in plenary  The cardiology spacialty clinic has made a very detailed information package with examples of cases and clinical text results. It sets a similar approach in the oncology clinic would be:  Great, I would feel better prepared and sure that I would be exposed to the most important of the properties of cases and clinical text results. It sets a similar approach in the oncology clinic would be:  Great, I would feel better prepared and sure that I would be exposed to the most important of the properties  |         |         |   |
| 40 29 Too high, we did not have enough time to go through the cases in plenary  33 The cardiology spacialty clinic has made a very detailed information package with examples of cases and clinical test results. I feet a similar approach in the encology clinic would be record to case and clinical test results. I feet a similar approach in the encology clinic would be concept in oncology  30 0 0 1 Idon think it is relevant as I felt that I got through all important elements during my rotation  30 1 1 Idon think it is relevant as I felt that I got through all important elements during my rotation in oncology I feet:  30 0 Indoor think it is relevant as I felt that I got through all important elements during my rotation in oncology I feet:  31 0 Oncology is mostly about treatment and chemotherapy and is therefore not relevant for first oncology is mostly about treatment and chemotherapy and is therefore not relevant for first oncology is mostly about diagnosis and workup and to a lesser degree about chemotherapy and feet in the relevant on the properties of the standard of t |         |         |   |
| The cardiology spacialty clinic has made a very detailed information package with examples of cases and clinical test results. I feel a similar approach in the encology clinic would be:  Great, I would feel better prepared and sure that I would be exposed to the most important of cases and clinical test results. I feel a similar approach in the encology clinic would be:  Great, I would feel better prepared and sure that I would be exposed to the most important of the control of the |         | -       | 1   |
| The cardiology spacialty clinic has made a very detailed information package with examples of cases and dinical test results. I feel a similar approach in the oncology clinic would be :  Great, I would feel better prepared and sour that I would be exposed to the most important of the concept in oncology.  0 0 1 don't think it is relevant as I feel that I got through all important elements during my rotation as 0 1 1 think it would be good but that it would require too much preparation time for the students of think it would be good but that it would require too much preparation time for the students of the concept |         | 29      | Too nign, we did not have enough time to go through the cases in plenary                      |
| cases and clinical test results. I feel a similar approach in the encology clinic would be:    20  | Q3      |         |   |
| Great, I would fele better prepared and sure that I would be exposed to the most important of the property of  |         |         |   |
| 20 88 concepts in oncology 0 0 1 door think it is relevant as 1 feft that 1 got through all important elements during my rotation 80 14 1 think it would be good but that it would require too much preparation time for the students 04   |         |         |   |
| 0 dot think it is relevant as lifet that got through all important elements during my rotation 80 14 think it would be good but that it would require too much preparation time for the students 04 1 After my rotation in oncology i feel: 0 Oncology is mostly about treatment and chemotherapy and is therefore not relevant for first opinion practitioners 0 Oncology is mostly about diagnosis and workup and to a lesser degree about chemotherapy and is therefore not relevant for first opinion practitioners 0 Oncology is mostly about diagnosis and workup and to a lesser degree about chemotherapy and is therefore very relevant for first opinion practite 0 As therefore very relevant for first opinion practite 0 Bit would not be relevant to discuss entries as part of the teaching 0 Bit would not be relevant to discuss entries as part of the teaching 0 Bit would not be relevant to discuss entries as part of the teaching 0 Bit would like more focussed teaching on 0 Cological principles 0 Cological principles 0 Dit would like more focus with the properties of the teaching on the focus of the properties of the proper | 20      |         |   |
| 28   |         |         |   |
| After my rotation in oncology I feel:  Oncology is mostly about treatment and chemotherapy and is therefore not relevant for first opinion practitioners.  Oncology is mostly about treatment and chemotherapy and is therefore not relevant for first opinion practice.  It opinion is a state of the state of  |         |         |   |
| After my rotation in oncology I feel:  Oncology is mostly about treatment and chemotherapy and is therefore not relevant for first 3 opinion practitioners  Oncology is mostly about treatment and chemotherapy and is therefore not relevant for first 3 opinion practitioners  Oncology is mostly about diagnosis and workup and to a lesser degree about chemotherapy and 6 is therefore very relevant for first opinion practice  So  Regarding ethichs. Since many cases can include ethichal dilemmas I feel  Begarding ethichs. Since many cases can include ethichal dilemmas I feel  100 550 it would be relevant to discuss ethics as part of the teaching  100 50 it would be relevant to discuss ethics as part of the teaching  100 50 this sare discussed on many other occasions and hence it is not nessessary to repeat here  100 50 this are discussed on many other occasions and hence it is not nessessary to repeat here  100 60 61 Staging procedures  100 61 Staging procedures  100 62 Staging procedures  100 63 Staging procedures  100 64 Reasons for referral  100 65 Sensitive conversations with owners  100 65 Sensitive conversations with owners  100 66 Sensitive conversations with owners  100 67 Sensitive conversations with owners  100 68 Most common fumor types  100 70 Ready to handle and diagnose oncological patients with some help from books and notes  100 69 Sensitive conversations with owners sensitive some help from books and notes  100 60 Sensitive to handle and diagnose oncological patients with some help from books and notes  100 60 Sensitive to handle and diagnose oncological patients with some help from books and notes  100 60 Sensitive to handle and diagnose oncological patients with some help from books and notes  100 60 Sensitive to handle and diagnose oncological patients with some help from books and notes  100 60 Sensitive to handle and diagnose oncological patients with some help from books and notes  100 60 Sensitive to handle and diagnose oncological patients with some help from books and notes  100 60 Sensitive to |         | 14      | I think it would be good but that it would require too much preparation time for the students |
| Oncology is mostly about treatment and chemotherapy and is therefore not relevant for first of control of the c | Ų4      |         |   |
| 0 also pointoin practitioners 0 choice yet mostly about diagnosis and workup and to a lesser degree about chemotherapy and 0 choice yet mostly about diagnosis and workup and to a lesser degree about chemotherapy and 100 set in therefore very relevant for first opinion practice 100 set would be relevant to discuss ethics as part of the teaching 100 set would be relevant to discuss ethics as part of the teaching 100 set would be relevant to discuss ethics as part of the teaching 100 set would like more focussed teaching on the teaching of the set |         |         |   |
| Oncology is mostly about diagnosis and workup and to a lesser degree about chemotherapy and the theoretical space of the second space and space  |         | 36      |   |
| 100 66 It therefore very relevant for first opinion practice  CS   | U       | 30      |   |
| Regarding ethichs. Since many cases can include ethichal dilemmas I feel   | 100     | 64      |   |
| Regarding ethicks. Since many cases can include ethichal dilemmas I feel  100 10 through be relevant to discuss ethics as part of the teaching  0 0 through on the relevant to discuss ethics as part of the teaching  0 150 Ethics are discussed on many other occasions and hence it is not nessesary to repeat here  150 Ethics are discussed on many other occasions and hence it is not nessesary to repeat here  150 Ethics are discussed teaching on  150 Ethics are discussed to repeat there  150 Ethics are discussed there  | Q5      |         |   |
| 100 50 it would be relevant to discuss ethics a part of the teaching 0 to the would not be relevant to discuss ethics as part of the teaching 0 50 thicks are discussed on many other occasions and hence it is not nessessary to repeat here 1 would like more focussed teaching on 60 64 Grading of tumors 1 0 65 Grading of tumors 1 0 10 10 10 10 10 10 10 10 10 10 10 10  |         |         | Regarding ethichs. Since many cases can include ethichal dilemmas I feel                      |
| 0  | 100     | 50      |   |
| thics are discussed on many other occasions and hence it is not nessesary to repeat here  livouid like more focussed teaching on  60   |         |         |   |
| CG   would like more focused teaching on   would like more focused teaching on   G Grading of tumors   G Grading of the G G Grading of the G G G G G G G G G G G G G G G G G G G   |         |         |   |
| would like more focussed teaching on   |         | 50      | canes are assessed of many other occasions and hence it is not necessary to repeat here       |
| 60 64 Grading of tumors 80 64 Staging procedures 20 43 Oncological principles 40 50 Treatment options 40 70 Treatment options 41 Reasons for referral 40 10 12 Treatment options 41 Reasons for referral 40 10 12 Treatment options 41 Reasons for referral 40 10 10 12 Treatment options 41 Reasons for referral 40 10 10 10 10 10 10 10 10 10 10 10 10 10  | Q,O     |         |   |
|  |         |         |   |
| 30 43 Oncological principles 40 30 Treatment options 20 48 Reasons for referral 20 77 Prognosis 20 10 14 Chemotherapy 20 10 15 Sensitive conversations with owners 21 100 36 Sensitive conversations with owners 21 100 38 Most common tumor types 20 11 After my roation in clinical oncology i fell that I am 20 0 Ready to handle and diagnose oncological patients with some help from books and notes 20 12 Not ready to handle and diagnose oncological patients with some help from books and notes 20 12 Not ready to handle and diagnose oncological patients with some help from books and notes 20 12 Not ready to handle and diagnose oncological patients with some help from books and notes 21 For my ideal and diagnose oncological patients with some help from books and notes 22 12 Not ready to handle and diagnose oncological patients with owner help from books and notes 23 12 Not ready to handle and diagnose oncological patients with more time to discuss and go through the theoretical vocal visit of the patient from during my rotation 23 Notes of the patient from during my rotation in would wish a few selected patients with more time to discuss and go through the theoretical vocal visit of the patient from the  |         |         |   |
| 40 50 Treatment options 20 43 Reasons for referral 20 72 Proponeis 30 6 A Reasons for referral 31 00 86 Most common tumor types 31 00 86 Most common tumor types 32 After my roation in clinical encology i fell that I am 4 o Ready to handle and diagnose encological patients with some help from books and notes 30 97 Ready to handle and diagnose encological patients with some help from books and notes 30 98 78 Ready to handle and diagnose encological patients with some help from books and notes 30 98 79 Ready to handle and diagnose encological patients with some help from books and notes 30 98 99 90 90 90 90 90 90 90 90 90 90 90 90  |         |         |   |
| 30 43 Reasons for referral 30 77 Prognosis 30 78 Prognosis 31 Chemotherapy 30 79 Senditive conversations with owners 3100 88 Most common tumor types 3100 88 Most common tumor types 320 After my roation in clinical oncology I fell that I am 30 0 Ready to handle and diagnose oncological patients with some help from books and notes 30 79 Ready to handle and diagnose oncological patients with some help from books and notes 30 12 No ready to handle and diagnose oncological patients with some help from books and notes 30 For my iddeal oncology rotation I would wish: 31 For my iddeal oncology rotation I would wish: 32 I would wich as high as possible patient flow during my rotation 33 I would wish a few selected patients with more time to discuss and go through the theoretical 34 Section of ready to the selected patients with more time to discuss and go through the theoretical 35 Section of ready to the selected patients with more time to discuss and go through the theoretical 36 Section of ready to the selected patients with more time to discuss and go through the theoretical   |         |         |   |
| 20 7.1 Prognosis 0 14 Chemotherapy 100 35 Sensitive conversations with owners 100 86 Most common fumor types  Q7 After my roation in clinical encodely if fell that I am 0 0 Ready to handle and diagnose encological patients with some help from books and notes 80 79 Ready to handle and diagnose encological patients with some help from books and notes 20 12 10 to ready to handle and diagnose encological patients with some help from books and notes 0 For my iddeal encology rotation I would wish: 0 2 10 would wich a high as possible patient flow during my rotation 1 would wish a few selected patients with more time to discuss and go through the theoretical 100 73 background for each case.   |         |         |   |
| 0 14 Chemotherapy 100 36 Sensitive conversations with owners 100 86 Most common tumor types  07  After my roation in clinical oncology i fell that I am 0 0 Ready to handle and diagnose oncological patients with some help from books and notes 20 21 Not ready to handle and diagnose oncological patients with some help from books and notes 08  For my iddeal oncology rotation I would wish: 0 29 would widn a high as possible patient flow during my rotation 1 would wish a few selected patients with more time to discuss and go through the theoretical 100 75 background for each case   |         |         |   |
| 100 30 Sensitive conversations with owners 100 80 Most common tumor types 27 27 38 After my roation in clinical oncology i fell that I am 2 0 Ready to handle and diagnose oncological patients with some help from books and notes 2 0 12 3 bor ready to handle and diagnose oncological patients with some help from books and notes 2 0 12 3 bor ready to handle and diagnose oncological patients with some help from books and notes 2 0 12 3 bor ready to handle and diagnose oncological patients with some help from books and notes 3 bor ready to handle and diagnose oncological patients with some help from books and notes 3 bor ready to handle and diagnose oncological patients with some help from books and notes 3 bor ready to handle and diagnose oncological patients with some help from books and notes 3 bor ready to handle and diagnose oncological patients with some help from books and notes 3 bor ready to handle and diagnose oncological patients with some help from books and notes 3 bor ready to handle and diagnose oncological patients with some help from books and notes 3 bor ready to handle and diagnose oncological patients with some help from books and notes 3 bor ready to handle and diagnose oncological patients with some help from books and notes 3 bor ready to handle and diagnose oncological patients with some help from books and notes 3 bor ready to handle and diagnose oncological patients with some help from books and notes 3 bor ready to handle and diagnose oncological patients with some help from books and notes 3 bor ready to handle and diagnose oncological patients with some help from books and notes 3 bor ready to handle and diagnose oncological patients with some help from books and notes 3 bor ready to handle and diagnose oncological patients with some help from books and notes 3 bor ready to handle and diagnose oncological patients with some help from books and notes 3 bor ready to handle and diagnose oncological patients with some help from books and notes 3 bor ready to handle and diagnose oncological pa |         |         |   |
| 100 86 Most common tumor types  27  After my roation in clinical oncology i fell that I am  0 0 Ready to handle and diagnose oncological cases independently  80 77 Ready to handle and diagnose oncological patients with some help from books and notes  20 21 Not ready to handle and diagnose oncological patients  08  For my iddeal oncology rotation I would wish:  0 20 I would wich as high as possible patient flow during my rotation  1 would wish a few selected patients with more time to discuss and go through the theoretical  1 body common for each case.  |         |         |   |
| 27 After my roation in clinical oncology i fell that I am 0  |         |         |   |
| After my roation in clinical oncology I fell that I am  0 Ready to handle and diagnose oncological cases independently  80 T8 Ready to handle and diagnose oncological patients with some help from books and notes  20 21 Not ready to handle and diagnose oncological patients  08  For my iddeal oncology rotation I would wish:  0 22 I would wich as high as possible patient flow during my rotation  1 would wish a few selected patients with more time to discuss and go through the theoretical  100 120 background for each case  |         | 86      | Most common tumor types   |
| 0 0 Ready to handle and diagnose oncological cases independently 79 Ready to handle and diagnose oncological patients with some help from books and notes 20 22 Not ready to handle and diagnose oncological patients 08 For my iddeal oncology rotation I would wish: 0 29 I would wich as high as possible patient flow during my rotation I would wish a few selected patients with more time to discuss and go through the theoretical 100 7 background for each case  | Q7      |         |   |
| 80 79   Ready to handle and diagnose oncological patients with some help from books and notes   20   21   Not ready to handle and diagnose oncological patients  |         |         |   |
| 20 21 Not ready to handle and diagnose oncological patients  28 For my iddeal oncology rotation I would wish:  0 29 I would wich as high as possible patient flow during my rotation  1 would wish a few selected patients with more time to discuss and go through the theoretical 100 100 100 100 100 100 100 100 100 100  | _       |         |   |
| OB  For my iddeat encology rotation I would wish:  0 29 I would wich as high as possible patient flow during my rotation I would wish a few selected patients with more time to discuss and go through the theoretical 100 73 background for each case.  |         |         |   |
| For my iddeal oncology rotation I would wish:  0 29 I would wich as high as possible patient flow during my rotation I would wish a few selected patients with more time to discuss and go through the theoretical 100 73 background for each case   | 20      | 21      | Not ready to handle and diagnose oncological patients   |
| 0 29 I would wich as high as possible patient flow during my rotation I would wish a few selected patients with more time to discuss and go through the theoretical 100 71 background for each acts  | Q8      |         |   |
| I would wish a few selected patients with more time to discuss and go through the theoretical background for each case   |         |         | For my iddeal oncology rotation I would wish:   |
| I would wish a few selected patients with more time to discuss and go through the theoretical background for each case   | 0       | 29      | I would wich as high as possible patient flow during my rotation                              |
|  |         |         | I would wish a few selected patients with more time to discuss and go through the theoretical |
| Q9   |         | 71      | background for each case  |
|  | Q9      |         |   |