MAAS-Global Manual

2000

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2000

GUIDELINES TO THE RATING
OF COMMUNICATION SKILLS
AND CLINICAL SKILLS OF DOCTORS
WITH THE MAAS-GLOBAL

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For personal pronouns and adjectives we did not use the "he/she" or "his/her" forms. We have chosen for the single male form.

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1. INTRODUCTION

OBJECTIVE

This manual offers guidelines for the use of the MAAS-Global instrument to rate doctors' communication and clinical skills. The criteria for rating communication skills are described in detail. Clinical skills, i.e. history-taking, examination, diagnostic and management skills, are only broadly defined because they are case-specific and therefore need to be specifically defined for each case.
The main purpose of rating is to obtain objective measures for use in feedback and judgement, for education and assessment.

DEVELOPMENT

The name MAAS-Global stands for Maastricht History-taking and Advice Scoring list consisting of global items. The acronym MAAS is derived from the Dutch name of the list and from the river Maas from which Maastricht takes its name. This list is the latest in a series starting with the MAAS, which was first developed as an instrument for rating in the skills test used in the Maastricht undergraduate medical curriculum. Research results and experiences resulted in new rating lists, the MAAS-R (Revision) and the MAAS-R2 (Revision 2). The MAAS-Global has been in use in the curriculum of the Maastricht Vocational Training for General Practitioners since 1992. From the start of the 1992-1993 academic year the Maastricht undergraduate medical curriculum employed its own version of the MAAS-Global. The rating lists were all developed for rating simulated-patient consultations. The 1998 version of the MAAS-Global has been adapted for use in consultations in actual general practice. This 2000 version is a further improvement.

OUTLINE

The MAAS-Global contains 3 sections (see appendix for an overview of items in each section):

1. **Communication skills for each separate phase**. This section contains skills that are appropriate for specific phases of the consultation. The logical order of these phases is reflected in the sequence in which the items are presented.

2. **General communication skills**. These skills can occur during several phases or throughout the consultation.
3. **Medical aspects**. This section is intended for rating the medical content and is structured along the lines of history-taking, physical examination, diagnosis and management.

Finally space is provided for **Other feedback**.

VALIDITY

The validity of an instrument is determined by the degree to which it measures what it is supposed to measure. There are different types of validity, such as content and construct validity. Content validity indicates whether a specific measurement is representative of what the instrument is intended to measure. Construct validity indicates how well the instrument can confirm or falsify a hypothesis.

The content of the items on communication skills in the MAAS-Global are based on the literature on doctor patient communication.[1,7-13] The educational objectives of the Dutch vocational training include objectives about communication with patients. All 13 communication items of the MAAS-Global cover 85% of these communication objectives.[14] For individual cases, the medical content and the instructions should be based on professional guidelines and consensus documents. The MAAS-Global has met with broad acceptance from experts and users, whose comments have been incorporated in the present version.[15] This means that the content validity of the MAAS-Global is ensured in various ways.

The results of several studies lend support to the construct validity of the MAAS-Global:

- Medical students showed a significant increase in ratings on the MAAS-Global over the course of the third year of the undergraduate medical curriculum.[16]
- Students in a postgraduate training programme in internal medicine who had received training in communication skills obtained significantly higher ratings on the MAAS-R2 compared to a control group that did not receive such training. [17] This result can be extrapolated to the MAAS-Global because another study has demonstrated good correlation between ratings on the MAAS-R2 and the MAAS-Global. The correlation was .80 ($p<0.001$) and after correction for attenuation it was 1.00.[4]
- A series of GP consultations with simulated patients was rated using the MAAS-Global. Ratings on communication skills and medical aspects were significantly higher compared to ratings on the same skills obtained at an earlier date on the basis of videotaped consultations in real practice.[18]
- A comparison between the results of students who had followed communication skills courses of different formats in two medical schools yielded statistically different ratings on many MAAS-Global items.[19]

Although the MAAS-Global can be used to rate consultations in real practice, it is not suitable for any situation in day-to-day practice. Optimal ratings can only be achieved when the consultation is relatively complete and uncomplicated, such as when the patient presents just one complaint and the consultation comprises all phases. When the MAAS-Global is used in day to day practice it is necessary to determine in advance how to rate consultations that involve different complaints, several persons, follow-up consultations, et cetera. It is important to ensure the content validity of the measurement. Content validity depends on the procedure and the criteria used to select the consultations.[20]

RELIABILITY

Reliability refers to the accuracy of the measurement. For a measurement to be reliable, repeated measurements must yield similar results. This is called reproducibility. Reproducibility depends on the instrument's internal consistency and the effects of various sources of variance. The internal consistency (Cronbach's alpha) and the reproducibility (generalizability coefficient) of the MAAS-Global are generally good.[2-5,20]

Many sources of variance can affect the outcome of the measurement. The MAAS-Global is only one component of a measurement strategy. In order to optimize reproducibility, attention must be paid to the following aspects:

1. The **rating list** must be easy to read, well-organized, and presented in a logical sequence. The essence of the items must be stated concisely.
2. The **criterion** for each item in the manual must be explained clearly and unambiguously.
3. **Observers** must apply the criteria as rigorously as possible and they must be consistent in their degree of strictness or leniency. Training will familiarize observers with the criteria and enable them to clear up any uncertainties. If feasible, selection of observers is recommended.
4. **Rating** should take place in **conditions** favourable to maintaining observers' attention and concentration.
5. When videotaped consultations are rated, good **quality pictures and sound** are necessary.
6. The accuracy of measurement is strongly affected by the **type of consultation** that is selected for rating. In consultations with simulated patients the conditions under which measurement takes place can be standardized and a high degree of uniformity can be achieved for all participants. Consultations in clinical practice are unpredictable. Thus it is necessary to draw up criteria for deciding which consultations will be selected for measurement purposes.
7. The **number of consultations** per participant should also be decided on in advance. Too few consultations lower reproducibility, too many consultations raise costs.
8. The **number of observers** and **how they are distributed** among doctors and consultations also influence reproducibility.

USE IN (CONTINUING) MEDICAL EDUCATION

The MAAS-Global measures the strengths and weaknesses of a doctor's performance in a valid and reliable manner. The criterion for each item is defined clearly and unambiguously. This means that it can be used to discuss performance afterwards. These characteristics make the MAAS-Global a valuable tool for undergraduate, postgraduate and continuing medical education.

Feedback on how a consultation was conducted is a well-known and effective educational activity. With its clear definitions of concepts and criteria, the MAAS-Global is a useful instrument for this purpose. Depending on the educational goal, all items can be used or a selection of items. In this way skills training can be built up step by step if desired. Consultations can be videotaped and watched afterwards to enhance the learning effect. It is also instructive when videotaped consultations in real practice are watched and discussed in a learning environment.

Several conditions must be met when the MAAS-Global is used for assessment purposes. One should be aware that in assessment the evaluation of an attribute always implies a decision, for instance a - pass/fail - decision (summative evaluation) or a decision to adjust learning goals (formative evaluation). The decision and the evaluation should not be taken lightly and must be founded on valid and reliable measurement. These considerations are captured by the formula:

ASSESSMENT = MEASUREMENT + EVALUATION + DECISION [21]

A representative group of leading experts will have to develop a strategy for deriving evaluations and decisions from MAAS-Global measurements. The MAAS-Global itself does not offer such a strategy. It only contains instructions for rating concrete behaviours, i.e. the criteria for the items.

In addition, it is important to appreciate that a comprehensive assessment of consultation skills based on MAAS-Global ratings does not reflect the rating on one item only but rather the sum of all ratings. The sum of all ratings is expressed as a percentage of the maximum that can be obtained in a certain consultation. Moreover, assessment should not only be based on the summed ratings of one observer or a single consultation, but on the summed ratings obtained by multiple observers in multiple consultations. The selection of consultations that is used should be a representative sample of the discipline concerned. For general practice selection criteria have been developed.[20]

2. GENERAL INSTRUCTIONS

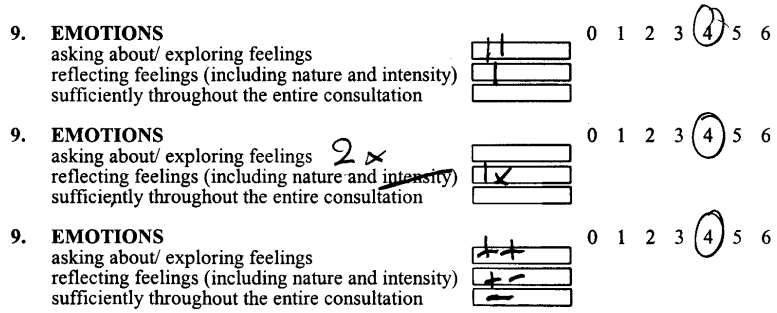
Before reading the instructions it is advisable to read the rating list in the appendix of this manual. The list is also enclosed separately.

The items should be interpreted in strict accordance with the criteria described in chapters 4, 5 and 6. The items are to be rated on a scale ranging from 0 up to 6:

0 = not present
1 = poor
2 = unsatisfactory
3 = doubtful
4 = satisfactory
5 = good
6 = excellent

For item 2 (follow-up consultation), item 4 (physical examination) and item 15 (examination) the rating "n.a." (not applicable) is an additional option. It should be used only if the consultation is not a follow-up consultation (item 2), if no physical examination is performed (item 4) or if it is appropriate to leave out the physical examination (item 15).

For every item in the first two sections of the list subitems are provided. Observers can use the boxes next to the subitems to enter their marks or crosses to indicate the occurrence of behaviour, or a plus or minus sign to indicate that the subitem was demonstrated YES (+) or NO (-). Observers can also write down short notes. The final rating of most items can only be given after the consultation has finished. Therefore anything that will help recollection is acceptable. The following example of item 9 "emotions" shows three different ways of marking subitems for ease of recall:



The descriptions of the criteria in this manual correspond to the level "excellent" (rating 6). The rate 0 "not present" is given if none of the behaviours included in the criterion are demonstrated. It is up to the observer to decide which of the other ratings, ranging from poor to good (ratings 1 up to 5), is appropriate within the interpretation limits set by the criterion. The scale from 0 up to 6 is an interval scale, i.e. the distance between 2 ratings is always the same. Both the degree to which the behaviour is shown and the quality of the behaviour must be incorporated into the rating. This applies to all items. This means that observers are free to exercise their own judgement in deciding how to incorporate quantity and quality into the rating. This freedom is an inherent quality of a global rating list, albeit that observers must be consistent in rating items and stay within the boundaries defined by the criteria.

The criteria apply equally to doctors in training and practising doctors. Items should be rated regardless of whether the doctor whose performance is judged is an undergraduate student, a student in a postgraduate training programme or an experienced clinician. These aspects will not be taken into account until the final evaluation is determined and a decision must be made on the basis of the ratings.

Assessment of medical content of the consultation (section 3) should **only** be considered in the items 14 through 17. In none of the other items should medical competence be considered in the ratings. This implies that incompetence or exceptional competence with respect to medical content can only be considered in the ratings of items 14 through 17 and **not** in the ratings of any of the other items.

If there are any doubts as to whether some skill or action was present or missing, observers should choose for missing. Considering for too much time distracts observers' attention. Experience has demonstrated that doubt generally indicates that the behaviour was not present.
In choosing between "5" (good) or "6" (excellent) it is often helpful to ask oneself whether the behaviour referred to in the item could have been done better. If the answer is "no", the observer should select "6" (excellent).

The rating list is concerned with the **doctor's** behaviour, not the patient's. Therefore, it is important to focus primarily on what the doctor says or does. What the patient says or does is only relevant for following the thread of the consultation. Thus, it follows that the doctor may rate poorly on an item, even though the patient talked about the issues contained in the item at considerable length.

The MAAS-Global is used to rate highly complex behaviour. Consequently, observers' expertise should meet high demands. This kind of expertise cannot be acquired by merely reading through this manual once. The desired level of expertise can only be achieved gradually, by studying the manual, practising rating, by experience and by repeatedly studying the criteria and explanatory comments.

Circle the rating that is applicable. Afterwards check whether all items have been rated clearly and unequivocally, i.e. check that the circle is clearly visible and that two ratings are not circled for one item.

3. DEFINITIONS OF CONCEPTS

A good understanding of the concepts measured by the instrument is a prerequisite for using the MAAS-Global accurately. A number of important concepts are defined and discussed below.

Communication skills

Communication skills in this manual concern behaviour of the doctor that is conducive to effective communication. They are mostly verbal skills but also some non-verbal skills. Doctor and patient communicate effectively if both seek to bring their mutual goals into line with each other and if both are aware of the meaning of the information exchanged.

Comments:
*The emphasis is on the **form** of communication. The doctor's skills in this regard are: asking questions, summarizations, reflecting feelings, ordering, structuring, exploring requests for help, information sharing, and involving the patient in the matter under consideration.*

Asking (additional) questions (items 1, 2, 5, 6, 7, 8, 9, 10, 11, 14)

Asking (additional) questions refers to the doctor using inviting phrases to encourage the patient to tell something more about a topic.

Comments:
Linguistically, the grammatical question (such as "how much does it bother you?") is the best form to be used in asking for information. It is, however, rarely used in everyday conversation. Most people only need a declarative sentence ("It is a problem?"), a paraphrase ("Uncomfortable?") or a literal repetition ("Bother-some") as an invitation to tell more. Whether the doctor intended a remark as a question can only be confirmed by asking the doctor, since the context of a consultation rarely provides enough information to determine this accurately. Furthermore, one patient may regard a remark as an invitation, whereas another patient may interpret it as a sign that the doctor has understood what was said. In light of these considerations observers should bear in mind that the act of "asking"

can be represented as a proper question, a declarative sentence or a literal repetition.

No distinction is made in the MAAS-Global between open-ended, closed-ended and leading questions. Whether the patient experiences an open question as an invitation to talk freely, depends largely on the context in which the question is asked. Indeed, in some cases an open question may even be experienced as threatening. A closed question, on the other hand, may invite the patient to tell more. With leading questions the context also partly determines to what extent the patient feels inhibited by the suggestion.

Exploring requests for help (items 3 and 9)

Exploring of requests for help refers to exploration (item 9) and naming (item 3) of the following key questions:

1 What change in the present situation is expected by the patient.
2 What are the patient's wishes and expectations about how this change can be brought about and the doctor's role in this respect.

The result of 1 and 2 is called request or requests for help.

Comments:
Key question 1: The patient experiences the present situation as one that is undesirable, and unacceptable. Usually, it involves discomfort or pain, physical and/or mental. The patient wants to change this situation and does or does not have a very clear picture of how to bring this about. In many cases patients have not given much thought to the desired situation and the doctor has to help the patient explore what he wants by asking clarifying questions.
Key question 2: The patient will have wishes or expectations regarding the course of action to be taken to change the present situation into the desired one. These wishes or expectations may be clear before the patient sees the doctor, they may also become clear through questions asked by the doctor, or they may gradually become clear over the course of their encounters. Wishes and expectations may concern both what the doctor will do during the diagnostic phase (history-taking and physical examination) and the plan proposed during the management phase (wait and see, treatment, referral, etc.) Wishes and expectations can also be negative, for example the patient's expectation that the doctor will write another prescription he does not want, or that he will be referred to a specialist he does not want to see as happened on the previous visit.

The following are some of the issues that may be related to one or the other of the above key questions. However, their importance will vary depending on the case concerned:

1 What considerations prompted the patient to seek help at this particular time.
2 What are the patient's feelings concerning the complaint or problem.
3 What are the patient's suspicions or assumptions with regard to the cause of the complaint or problem.
4 What has the patient himself done to manage the undesirable condition.
5 What impact have significant others (partner, family, friends) or important living situations (work, hobbies, sports) had on all of the above questions?

When the doctor introduces the above subjects himself, this does not automatically constitute exploration of requests for help. The patient's reaction, how the doctor pursues the subject and the result determine whether it concerns a request for help. For example, when the doctor asks: "What does your husband think about it" the patient may answer: "Well, all he ever thinks about are his pigeons", or "he mentioned cancer and now I am very worried". The first answer is unlikely to be related to the patient's request for help, the second answer can lead to the request "I need reassurance".

The first of the above issues (what considerations prompted the patient to seek help) is relevant to the request for help in so many cases that it is a subitem of the item on requests for help.

Exploring requests for help is not synonymous with attention to psychosomatic aspects or psychosocial background, although these may be considered in connection with the request for help. For example: although the fact that his partner gives the patient headaches is a psychosocial factor, this does not necessarily mean that it has to be discussed in the context of requests for help. In this patient's case exploring requests for help might reveal that he wants the doctor to prescribe a painkiller for his headache and that his psychosocial problem is not a request for help. If the doctor thinks it necessary, the psychosocial background can be dealt with during the (psychosocial) history and should be rated there (item 14).

There are situations where exploring requests for help is less appropriate and the doctor may limit this or not use it at all, such as in an emergency, a telephone consultation, when there are major language problems or large cultural differences. The consequences of this for measurement are addressed in the remarks on selection of consultations in the sections on validity and reliability in the introduction.

Frame of reference (item 8)

A frame of reference is a set of customs, a pattern of standards, one's perspective on reality, coloured glasses through which one looks at the world.

Comments:
The patient's frame of reference *is the whole of his notions and perceptions concerning the complaint or problem. It is also referred to as the patient's perceptions of reality or the patient's perspective. It is always determined by highly personal factors and can only be discovered by responding to remarks (such as "one hears all kinds of things", "I am rather worried", "do you think that something else is wrong?") or by the doctor directly asking questions ("are you worried?", "what do you think is wrong?").*

The doctor's frame of reference *is the whole of his notions and perceptions pertaining to his work as a professional. Apart from individual characteristics, the doctor's frame of reference generally includes the medical model of history, physical examination, diagnosis and management.*

Reflection of feelings (item 9)

Reflection of feelings means that the doctor gives a verbal rendering of the feelings expressed by the patient during the consultation either in words or nonverbally. The doctor's reflection must:

- appropriately reflect the nature of the feelings
- accurately reflect the intensity of the feelings

Comments:

Example: A patient has just told the doctor that he is terrified of having an operation and the doctor responds by saying: "I understand that you feel some concern". Although the doctor does reflect the patient's feelings, he does not accurately label the feeling (concern rather than terror) or reflect its intensity (some versus a large amount). A better response would have been: "You are really very anxious".

Doctors often say something like "I can understand that" to show that they sympathize. The above definition shows that such a remark is not a reflection of feelings. At best it shows empathy, at worst it is a cliché. It becomes a reflection of feelings if subsequently the feeling is named, such as "I can understand that having this operation is really very frightening".

Summarizations (item 11)

Summarization means that the doctor rephrases the main topics introduced by the patient in the preceding part of the consultation. The main purpose is to check whether the doctor has accurately understood the patient's intentions.

Comments: A good summarization should meet the following requirements:

- *it should accurately reflect the content of what the patient said*
- *it should be concise: a brief account of what the patient has said*
- *it should be a re-phrasing of the account rather than a literal repetition*
- *it should seek verification of the summarization by directly asking the patient for verification, by using a questioning tone of voice, or by following the summarization with a pause that invites the patient's response.*

4. COMMUNICATION SKILLS FOR EACH SEPARATE PHASE

The criteria are described to correspond to the rating excellent. They are further elucidated by some explanatory comments.

Item 1: INTRODUCTION 0 1 2 3 4 5 6

giving the patient room to tell his story
general orientation on the reason for visit
asking about other reasons for visit

Criterion corresponding to the rating "excellent"

In the initial phase of the consultation the doctor orientates himself with regard to the reason for the visit by giving the patient room to talk about his complaints, problems or questions in his own words and, if necessary, by asking general questions to encourage the patient. General questions include questions about how long the patient has had the problem or complaint, how serious it is and what it means to the patient. The opening question is not rated.

The doctor explores whether there are any other reasons for the patient's visit. In rating this aspect the timing of this question is crucial: before starting detailed history-taking.

Comments:

"Reason for visit" includes anything that is initially brought up by the patient, such as complaints, problems or questions.

Occasionally, it may be difficult to distinguish between the orientation on the reason for the visit and questions pertaining to the history. The main distinction is that orientation is concerned with the main points of the history, not the details. Examples of orientating questions are: What is the problem? How long have you had this? How much does it bother you? These questions help the doctor to orientate about the patient's reasons for visit. History-taking involves specific questions from the doctor's perspective. The more the opening questions resemble history related questions the lower the rating on this item. Questions pertaining to the history are rated in item 14 (history-taking).

Although questions about other reasons for the visit should not be among the opening questions, they should be asked quite early in the consultation. These questions are included in the introduction for reasons of organisation. It is important to ask about other reasons for the visit to ensure that these reasons are not overlooked, help the patient complete his story and enables the doctor to plan the consultation.

The opening question ("Well, tell me", "What can I do for you") is not rated because this question is almost always asked and therefore does not contribute to differences in ratings between doctors.

Item 2: FOLLOW-UP CONSULTATION n.a. 0 1 2 3 4 5 6

naming previous complaints,
requests for help and management plan
asking about adherence to management plan
asking about the course of the complaint

Criterion corresponding to the rating "excellent"

In a follow-up consultation the doctor makes the connection with the previous consultation by naming the previous complaints, requests for help and arrangements made.
The doctor also finds out whether the patient has complied with the agreed management plan.
The doctor also asks about the course of the complaint and the effect of the treatment or management strategy.

Comments:
A follow-up consultation is a sequel to a previous consultation with the same doctor about the same subject within the same illness episode. If one of this aspects is missing n.a. (not applicable) should be circled. Unless the context clearly shows otherwise, it should be assumed that the same doctor is involved.
When the doctor summarizes issues from a previous consultation, for instance by reading from the record, the issues mentioned are rated here. The summarization as such is not rated, because summarization applies to issues of the present consultation that the patient has brought up (see definition in chapter 3).

Item 3: REQUEST FOR HELP 0 1 2 3 4 5 6

naming requests for help, wishes or expectations
naming reasons that prompted the patient to come now
completing exploring request for help

Criterion corresponding to the rating "excellent"

The doctor names the patient's requests for help, wishes or expectations.
In addition the doctor names the reason the patient states why he came for the visit.
The doctor completes the request for help by checking whether all patient's questions, wishes or expectations have been addressed.

Comments:
For more details see the definition of request for help under "definitions of concepts" (chapter 3).
This item pertains to the content of request for help, i.e. to what extent the doctor demonstrates that he has fully heard and acknowledged what the patient wants to

say. When the doctor limits the request for help to asking questions and fails to rephrase the patient's responses, the rating is "0" on the first two aspects of this item. The questions themselves and their quality are rated in item 8 (exploration).
"Naming requests for help" and "reasons that prompted the patient to come now" does not apply to suggestions made by the doctor that were not first expressed by the patient. For instance, the following would not result in a rating: Doctor: "You want this symptom cleared up?", patient: "Well, what I really want to know is whether it is serious". The important thing is that the doctor rephrases a topic that the patient has brought up. This type of question that includes a suggestion by the doctor can be rated as a suggestive way of exploring in item 8 (exploration).
Completion of request for help and the reason for presenting now can be inferred from the patient's affirmative response to a question like "So the main thing was ... and you expect me to ... Is that really everything you want?" This criterion has been added because doctors, if they pay any attention to request for help at all, tend to be easily satisfied when they clarify one request for help and do not ask for any further requests.
*Exploration of request for help can occur or continue during any phases of the consultation. For instance, the doctor may ask the patient about his expectations regarding the management plan. It follows that this item can be rated during any phase of the consultation provided the doctor actually **names** requests for help, wishes or expectations. Naming the request for help is rated in this item, exploration should be rated in item 8 (exploration).*

Item 4: PHYSICAL EXAMINATION n.a. 0 1 2 3 4 5 6
instructions to the patient
explanation of what is being done
treating the patient with care and respect

Criterion corresponding to the rating "excellent"
The doctor tells the patient before he performs the physical examination where it will take place, which parts of the body should be uncovered and what the patient should do (lie, sit, etc.).
The doctor explains what the examination entails and explains his further actions during the examination if necessary.
The doctor treats the patient with care and respect. He anticipates the patient's reactions to the examination, e.g. pain, and addresses them. When no physical examination is performed, either indicated or not, "n.a." should be circled.
When, for any reason, no physical examination is performed, n.a. should be circled.

Comments:
Observers should not rate the medical aspects of the physical examination here, since this is rated in item 15.
The announcement that the examination will be performed is rated in item 12.
*Explanation of what is being done is limited to explaining **what** the doctor is doing not **why** it is being done. It does not include giving reasons or arguments why the examination is performed. With examinations that are more complicated, take more*

time or are more invasive the doctor may explain his further actions during the examination. With a limited examination, such as auscultation or measuring blood pressure it is enough to explain the procedure before the examination is performed.

Item 5: DIAGNOSIS 0 1 2 3 4 5 6

naming findings and diagnosis/hypothesis
naming causes or the relation between findings and diagnosis
naming prognosis or expected course
asking for the patient's response

Criterion corresponding to the rating "excellent"

The doctor names the main findings from the history and physical examination, followed by a diagnosis or working hypothesis.
In addition the doctor tells about the causes of the complaint or disorder, or the connection between findings and diagnosis.
The doctor gives a concrete indication of the seriousness, the expected duration of the complaint and the course, with or without treatment.
Finally, the doctor asks the patient to give his reaction to the findings, diagnosis, prognosis etc.

Comments:
The diagnosis may also involve negative findings, such as "I cannot find anything unusual". A (preliminary) diagnosis is also rated when the doctor says that he is not able to draw any definite conclusions or when the diagnosis is formulated negatively, such as "It is definitely not a hernia".
Naming causes or the relation between findings and causes is rated regardless of the way in which the doctor does so.
When a doctor names a finding, diagnosis, cause, etc. in response to a question by the patient, the item is rated, unless it is evident that the doctor would not have named it without being prompted. An example of the latter would be when the patient asks on leaving: "How long will it take?"
When "asking for the patient's response", one question is enough for the behaviour to be rated. The quality of the question and further exploration is rated in item 8 (exploration).
The content of the "diagnosis" phase should be disregarded. Content is rated in item 16.

Item 6: MANAGEMENT 0 1 2 3 4 5 6

shared decision making, discussing
alternatives, risks and benefits
discussing feasibility and adherence
determining who will do what and when
asking for patient's response

Criterion corresponding to the rating "excellent"

The doctor discusses the management strategy by letting the patient have his say by asking the patient's opinion or by making an inviting pause. The risks and benefits of the proposed management strategy are also discussed. Depending on the nature of the complaint the doctor may need to discuss alternatives or indicate that there are no alternatives. The risks and benefits of the proposed management strategy and any alternative strategies are also discussed.

The doctor talks about the feasibility of the proposed strategy taking into account the patient's possibilities and the doctor verifies if and to what extent the patient will adhere to the proposed management strategy.

The doctor makes concrete arrangements about further medical actions (who, what, when).

Finally, the doctor asks about the patient's reactions to the proposed course of action and arrangements.

Comments:

The patient's reaction as such is irrelevant. It is not important whether the patient reacts to the explanation of the risks and benefits or does not choose between alternatives offered by the doctor or leaves the decision to the doctor. The item is concerned with the invitation by the doctor, not with the patient's reaction. As with all other items the observer is only concerned with the doctor's behaviours in carrying out each of the subitems.

When the doctor carries out a subitem in response to a patient question, it is rated, unless it is evident that the doctor would definitely not have mentioned it otherwise, for instance when the patient asks on leaving: "Do I have to come again?"

In eliciting the patient's response to the management plan one question suffices. The quality of the question and any further explorations are rated in item 8 (exploration).

The medical content of the "management" phase should be disregarded. It is rated in item 17.

Item 7: EVALUATION OF CONSULTATION 0 1 2 3 4 5 6

general question
responding to request for help
perspective for the time being

Criterion corresponding to the rating "excellent"

At the end of the consultation the doctor asks a general question about what the patient thinks or feels at this moment. The question need not concern any specific aspect of the consultation.

At the end of the consultation the doctor checks whether the patient's requests for help have been adequately addressed.

The doctor checks whether the patient has been offered perspective for the time being.

Comments:

Evaluation of consultation can be rated on the basis of a general question that the doctor asks at the end of the consultation ("All right?", "Do you agree?", "Are you satisfied?") even though the doctor may not have intended this as an evaluation. Such questions often refer to what was discussed last, generally management and the arrangements made. In those cases the question is rated either in item 6 (management) or here.

Evaluation of the doctor's response to the request for help will depend on whether the doctor explicitly refers to the request for help. This may mean that the doctor refers to "your questions" or, preferably, actually names the requests for help.

5. GENERAL COMMUNICATION SKILLS

The criteria are described to correspond to the rating excellent. They are further elucidated by some explanatory comments.

Item 8: EXPLORATION 0 1 2 3 4 5 6

exploring requests for help,
wishes or expectations
exploring patient's response to information given
within patient's frame of reference
responding to nonverbal behaviour and cues

Criterion corresponding to the rating "excellent"
The doctor explores the patient's requests for help, wishes or expectations by asking questions. This should be done in an inviting manner.
The doctor explores the patient's reaction to the information given. This applies in particular to the phases "diagnosis" and "management".
Exploration takes place within the patient's frame of reference.
While exploring the doctor responds to nonverbal behaviour and cues.

Comments:
*This item measures the **quality** of the questions asked by the doctor to clarify the patient's perceptions of his complaints. These perceptions play an important part in patients' requests for help, wishes and expectations, and also in the way patients react to information given by the doctor. In item 3 (request for help) only **naming** the requests for help, wishes and expectations is rated. Items 5 (diagnosis) and 6 (management) rate only **whether** the doctor asks the patient's response, not how this is done.*
A prerequisite for exploration is that the doctor creates an inviting, open and safe climate for the patient. If he succeeds in doing so, open-ended questions are the best approach to exploration. However, sometimes the doctor may find he should ask only closed-ended questions. Thus it is not important what type of question (open or closed) is used, but rather whether the questions and the doctor's attitude are inviting.
Since this item concerns the exploration of the patient's perceptions, ~~so~~ the doctor should ask questions within the patient's frame of reference. Asking this type of question is by no means easy and the doctor may tend to ask questions from his own perspective. This is not prohibited, but it does not contribute to the rating. The doctor who best succeeds in keeping his questions within the patient's frame of reference,

will obtain the highest ratings on this item.
Exploration can be required in any phase of the consultation, but it is most appropriate during request for help, diagnosis and management. During these phases the observer should be especially on the alert for rating exploration as well as the items concerned (3, 5 and 6).
*Exploration should be **relevant** within the context of the complaint or the doctor should explain the relevance of the question to the complaint. For example a doctor may explore personal or psychosocial conditions within the patient's frame of reference, even though the patient did not present these as complaints nor has any idea why the doctor explores these issues.*
For further comments see also the definitions of exploration and frame of reference (chapter 3).

Item 9: EMOTIONS 0 1 2 3 4 5 6

asking about/ exploring feelings
reflecting feelings (including nature and intensity)
sufficiently throughout the entire consultation

Criterion corresponding to the rating "excellent"
The doctor asks about the patient's feelings or he asks questions when the patient shows emotions.
The doctor reflects the feelings that the patient shows and expresses appropriately, with respect to both their nature and intensity.
The doctor pays attention to the feelings throughout the consultation by asking questions and reflecting feelings sufficiently and with an appropriate balance of time, i.e. not too much and not too little.

Comments:
See for further explanation the definition of reflection of feelings under "definitions of concepts" (chapter 3).
*This item does not measure whether the interaction can be qualified as "cold" or "warm", or whether the patient is emotional or the doctor empathetic. The doctor's behaviours in this regard are often nonverbal and are rated in the item empathy (item 13). In rating this item "emotions" observers should rate how well the doctor responds **verbally** to patient emotions.*
Feelings and reflection of feelings concern the patient's feelings and emotional responses related to the complaint. Observers should not include the feelings of pain or discomfort associated with the complaint. These feelings are usually addressed during history-taking. It goes without saying that the item is not about the doctor's feelings.

Doctors often reflect patient emotions in summarizations, which makes it difficult to observers to identify these as reflections of feelings. Nevertheless they should be rated separately from summarizations as reflections of feelings in this item.

Item 10: INFORMATION GIVING 0 1 2 3 4 5 6

announcing, categorizing
in small quantities, concrete explanations
understandable language
asking whether the patient understands

Criterion corresponding to the rating "excellent"

The doctor announces to the patient that he is going to give information about a subject and explains which categories will be dealt with.
The information is given in small quantities and the doctor explains details concretely.
The doctor uses language that is easy to understand for this particular patient.
The doctor checks whether the patient has understood the information by asking questions.

Comments:
Example of an announcement: "I will tell you something about what I have found".
Example of categorizing: "First I am going to tell you what I have found, then I will explain what I think is going on and finally I will explain what I think should be done about it. Now, first of all……."
"Small quantities" implies that the doctor does not give too much information at once. He can do this by pausing between pieces of information to give the patient the chance to absorb the information or ~~to~~ ask for clarification.
Doctors rarely announce that they are going to give information or state the categories of information they are going to give. They also rarely ask whether the patient has understood the information ("What do you think?", "Do you understand what I am saying?"). Observers should be aware of this, since it affects the rating.
Information giving only applies to the phases "diagnosis" and "management". During these phases the observer should be especially alert and rate also the subject of the information (items 5 and 6) and the medical content (items 16 and 17), as well as this item 10 itself.

Item 11: SUMMARIZATIONS 0 1 2 3 4 5 6

content is correct, complete
concise, rephrased
checking
sufficiently throughout the entire consultation

Criterion corresponding to the rating "excellent"

The doctor demonstrates throughout the consultation that he has heard what the patient has to say through sufficient and well-balanced summarizations, phrases concisely, in his own words, contentwise correct, and he offers the patient room to respond (pause, questioning intonation, asking question).

Comments:
See for further explanation the definition of summarization under definitions of concepts (chapter 3).
The rating "excellent" can only be given when summarizations are integrated in the

whole consultation in a well-balanced manner and when they are of good quality. Summarizations of a previous consultation that occur in a follow-up consultation, should not be rated here. A summarization refers exclusively to what has been discussed in the present consultation (see definition).

Item 12: STRUCTURING 0 1 2 3 4 5 6

logical sequence of phases
balanced division of time
announcing (history-taking, examination, other phases)

Criterion corresponding to the rating "excellent"

The doctor gives guidance to the consultation by ordering phases in a logical way, consecutively: introduction, follow-up consultation, request for help, history, physical examination, diagnosis, management and evaluation.
The doctor also divides his time between the phases used in a well-balanced way and, if necessary, intervenes to cut the story of a very talkative patient short. The doctor brings structure to the consultation by announcing the phases used.

Comments:
When the doctor leaves out a particular phase of the consultation, this should not negatively influence the rating, because "balanced division of time" applies only to the phases used.
With a very talkative patient it may be necessary and effective to interrupt the patient. If the doctor is too lenient and as a result of this runs out of time, time will no longer be distributed in a well-balanced manner over the different phases of the consultation. The doctor may do a part of the history during the physical examination provided he does so in an orderly manner.
The "management" phase must follow the "diagnosis" phase.

Item 13: EMPATHY 0 1 2 3 4 5 6

concerned, inviting and sincerely empathetic
in intonation, gesture and eye contact
expressing empathy in brief verbal responses

Criterion corresponding to the rating "excellent"

The doctor's attitude is inviting and shows his concern for the patient. Also he is sincere in showing empathy. This attitude is reflected in gestures, eye contact and tone of voice.
The doctor expresses empathy in brief verbal responses.

Comments:
Empathy refers to concern and sympathy. It comprises verbal and nonverbal aspects.
Nonverbal expressions of empathy are observed when the doctor displays a clearly patient-centred attitude and speaks in a tone of voice that shows real empathy and is supported by appropriate gestures and eye contact. All nonverbal

expressions of empathy are rated in this item.
Verbal expressions of empathy are seen in behaviour that is partly rated in other items, for instance treating the patient with care and respect (item 4), exploring requests for help, wishes and expectations (item 8) and asking about / exploring feelings, and reflecting feelings (item 9). Verbal responses that are to be rated in this item 13 are those when the doctor briefly repeats what the patient has said to indicate that he is listening or short responses like "uh huh" or "mm", to show that he is listening or to encourage the patient to go on. Short expressions like "oh really" or "that's awful", which are clearly intended to show sympathy are also rated in this item.
Other evidence of empathy:
- *not interrupting the patient without good reason*
- *conducting the conversation in a quiet environment by avoiding unnecessary interruptions (telephone conversations, people coming and going)*
- *avoiding awkward silences*
- *not starting a lengthy conversation when the patient is undressed or is undressing.*

*Empathy should be evident from the **doctor's behaviour**. Empathy cannot be inferred from the fact that the **patient** appears to feel at ease.*
In rating empathy a variety of behaviours should be considered: verbalisations, intonation (calm, inviting) and posture (directed toward the patient, eye contact while speaking, the doctor's gestures in greeting the patient and when the patient is leaving). It will be clear that the observer should not only listen, but also watch carefully.
In observing a videotaped consultation eye contact could be difficult to judge. In this case it should suffice that the doctor's body and head are turned toward the patient and that the doctor is not writing, typing on the computer etc. while talking to the patient.
Leniency in management aspects is not a sign of empathy and its consequences should be rated in item 17 (management).

6. MEDICAL ASPECTS

The items in this section (item 14-17) are intended for rating the medical content of the consultation. Items 1-13 concern communication skills, items 14-17 are related to what the doctor says and does as a medical professional. It is the doctor's medical competence that is being rated, both quantitatively and qualitatively. Does the doctor ask the right questions and is the number of questions adequate? Is the physical examination appropriate? Does the doctor explain his findings to the patient adequately and accurately? Is the management plan in line with professional guidelines?

The comments in this chapter were written with Dutch GPs in mind, since they are currently the main group of users. If the need arises, the comments have to be adapted to other groups of users.

When the observer's professional organisation or medical society has published guidelines for specific diseases or complaints, consultations involving these disorders should be rated in accordance with these guidelines. Consultations involving disorders for which no guidelines have been published should be rated in accordance with the prevailing professional standard. In these cases the rating is more difficult to assess.

Unlike the items on communication skills the items on medical aspects lack subitems. This is due to the uniqueness of a case, i.e. what is obligatory in one case, like asking a specific question during history taking, the physical examination or the management strategy, may be completely irrelevant in another one. The subitems in the MAAS-Global are applicable to all cases. Another reason why no subitems are included is that some concepts in medicine are not firmly grounded in evidence nor clearly defined. This applies for instance to the "psychosocial history", "asking questions about psychosocial aspects", "attention to psychosocial consequences". Furthermore these aspects are not relevant for all cases, although opinions about this may differ. For these reasons items on medical content have no subitems and are presented only with a list of aspects that may be rated.

When consultations are rated with a view to feedback and educational purposes, it is advisable to note the medical aspects that have strongly affected the rating under other feedback. For instance in the history: "the distribution of attention over somatic, psychological and social aspects was well-balanced" or regarding management: "drug therapy not indicated according to the guideline".

Item 14: HISTORY-TAKING 0 1 2 3 4 5 6

This item can be used to rate somatic history and psychosocial history, if applicable.

Rate according to professional guidelines if they are available. Otherwise rate to the best of your ability.

Comments:
If a psychosocial history is appropriate, but not obtained, the rating should be lower, regardless of the quality of the somatic history.

Item 15: PHYSICAL EXAMINATION n.a. 0 1 2 3 4 5 6

This item can be used to rate if applicable:
- physical examination by the doctor
- additional tests done by the doctor during the consultation

Rate according to professional guidelines if they are available. Otherwise rate to the best of your ability.

Comments:
Physical examination consists of the examination and additional investigations carried out during the consultation. Additional investigations that are planned after the consultation are rated under "management" (item 17).
Physical examination that is not recommended in the guidelines is considered superfluous and should result in a lower rating.
If data obtained in the history or in previous consultations indicate that a physical examination is not necessary, raters should circle "n.a.".

Item 16: DIAGNOSIS 0 1 2 3 4 5 6

This item can be used to rate diagnosis or working hypothesis.

Rate according to professional guidelines if they are available. Otherwise rate to the best of your ability.

Comments:
The observer rates the medical quality of the "diagnosis" phase using the information that the doctor gives to the patient. This concerns the phase when the doctor makes his diagnosis. The doctor decides which diagnosis or working hypothesis to use on the basis of the findings from the history and the physical examination, or he decides that he does not know. All this takes place inside the doctor's head and it is only shown to the observer and the patient when the doctor tells his findings, considerations, diagnosis, causes, prognosis and expected course of disease. This item is concerned with the medical content of the diagnosis.

Item 17: MANAGEMENT 0 1 2 3 4 5 6

For this item observers should rate the following aspects if applicable:
- wait and see
- education
- treatment
- medication
- additional tests
- referral

Rate according to professional guidelines if they are available. Otherwise rate to the best of your ability.

Comments:
Medication and other treatment strategies fall under "management". When appropriate, education is also a part of "management".
Any referrals and additional tests are included in the rating. If referral is indicated (by consulting guidelines!) this will lead to a higher rating. An inappropriate referral, i.e. referring the patient when this is not indicated, leads to a lower rating.
The patient's contribution may affect the choice of management strategy. The observer should take this into account when the doctor deviates from the management proposed in guidelines. If the doctor allows interpersonal factors to interfere with his adherence to consensus in management decisions, such as in cases where the doctor tries to avoid a conflict with the patient, this should have a negative effect on the rating.

7. OTHER FEEDBACK

The section "other feedback" can be used to give feedback that cannot be categorized under any item, or to emphasize any important behaviour.

Comments:
No list is complete, and the MAAS-Global is no exception. However, to obtain a valid result a list need not be exhaustive. Research is needed to demonstrate which skills should be incorporated into a list for measurement to be valid.
This means that observers may come across behaviours that they would like to include in the rating, even though they are not covered by any of the listed items. When such behaviour occurs, it should not be rated in any item, but a comment should be put in the space for "other feedback" to be communicated to the doctor concerned.

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APPENDIX

MAAS-Global Rating List
for Consultation Skills of Doctors

When used for rating the two pages of this list are usually copied in landscape format on a diminished scale to fit on one A4 page (21 x 30 cm).

MAAS-Global Rating List for Consultation Skills of Doctors

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doctor: name
registration number
case
patient
observer

0 = not present 2 = unsatisfactory 4 = satisfactory 6 = excellent
1 = poor 3 = doubtful 5 = good n.a. = not applicable
The rating boxes are intended only as a reminder for the observer.
Circle the relevant rating for each item.

SECTION 1: COMMUNICATION SKILLS FOR EACH SEPARATE PHASE

1.	**INTRODUCTION**		0	1	2	3	4	5	6
	giving the patient room to tell his story								
	general orientation on the reason for visit								
	asking about other reasons for visit								
2.	**FOLLOW-UP CONSULTATION**	n.a.	0	1	2	3	4	5	6
	naming previous complaints, requests for help and management plan								
	asking about adherence to management plan								
	asking about the course of the complaint								
3.	**REQUEST FOR HELP**		0	1	2	3	4	5	6
	naming requests for help, wishes or expectations								
	naming reasons that prompted the patient to come now								
	completing exploring request for help								
4.	**PHYSICAL EXAMINATION**	n.a.	0	1	2	3	4	5	6
	instructions to the patient								
	explanation of what is being done								
	treating the patient with care and respect								
5.	**DIAGNOSIS**		0	1	2	3	4	5	6
	naming findings and diagnosis/hypothesis								
	naming causes or the relation between findings and diagnosis								
	naming prognosis or expected course								
	asking for patient's response								
6.	**MANAGEMENT**		0	1	2	3	4	5	6
	shared decision-making, discussing alternatives, risks and benefits								
	discussing feasibility and adherence								
	determining who will do what and when								
	asking for patient's response								
7.	**EVALUATION OF CONSULTATION**		0	1	2	3	4	5	6
	general question								
	responding to requests for help								
	perspective for the time being								

SECTION 2: GENERAL COMMUNICATION SKILLS

8. EXPLORATION 0 1 2 3 4 5 6

exploring requests for help, wishes or expectations ☐
exploring patient's response to information given ☐
within patient's frame of reference ☐
responding to nonverbal behavior and cues ☐

9. EMOTIONS 0 1 2 3 4 5 6

asking about/ exploring feelings ☐
reflecting feelings (including nature and intensity) ☐
sufficiently throughout the entire consultation ☐

10. INFORMATION GIVING 0 1 2 3 4 5 6

announcing, categorizing ☐
in small quantities, concrete explanations ☐
understandable language ☐
asking whether the patient understands ☐

11. SUMMARIZATIONS 0 1 2 3 4 5 6

content is correct, complete ☐
concise, rephrased ☐
checking ☐
sufficiently throughout the entire consultation ☐

12. STRUCTURING 0 1 2 3 4 5 6

logical sequence of phases ☐
balanced division of time ☐
announcing (history taking, examination, other phases) ☐

13. EMPATHY 0 1 2 3 4 5 6

concerned, inviting and sincerely empathetic in intonation, gesture and eye contact ☐
expressing empathy in brief verbal responses ☐

SECTION 3: MEDICAL ASPECTS

Rate according to professional guidelines if they are available.
Otherwise rate to the best of your ability.

14. HISTORY TAKING ☐ 0 1 2 3 4 5 6

15. PHYSICAL EXAMINATION ☐ n.a. 0 1 2 3 4 5 6

16. DIAGNOSIS ☐ 0 1 2 3 4 5 6

17. MANAGEMENT ☐ 0 1 2 3 4 5 6

OTHER FEEDBACK