

## **Development of an educational tool to raise awareness of NICE guidelines on referral for suspected cancer: the BMJ Learning report**

Kieran Walsh, Clinical Editor, BMJ Learning.  
Luisa Dillner, Head of BMJ Learning.

### **Executive summary**

BMJ Learning was commissioned by NICE to produce three learning modules to meet the needs of doctors who refer patients with suspected cancer to secondary care. BMJ Learning did this to time and in a cost effective manner. BMJ Learning launched the first of the modules within three weeks of the contract being signed – five weeks ahead of schedule. BMJ Learning can show that these modules help doctors put these guidelines into practice.

A total of 1528 users completed the module on lower gastrointestinal tract cancer. 1511 users completed the module on lung cancer. 1563 users completed the module on breast cancer.

Doing the modules enabled users to increase their knowledge and skills in how to refer patients with these types of cancer. Doing the modules enabled users to improve their score from the pretest to the post-test by a statistically significant amount ( $p < 0.001$ ).

Feedback to the modules was overwhelmingly positive – we list all the 1120 comments that we received in the appendix. ("Much more useful and memorable than just reading the guidelines. Would like more NICE modules in future. Thanks." "Proved to me that knowing the NICE guidelines and actually putting that knowledge into clinical practice is not as easy as it seems. An excellent module. Thank you.")

We emailed doctors six weeks after they had completed the modules to see if they had put the guidelines into action. The response rate to the survey was 19%. Eighty three percent of those who had referred patients with suspected cancer since completing the module said that the module had helped them put NICE guidelines into practice. Ninety three percent of those who had not seen patients with suspected cancer said that the module would help them put the guidelines into practice in the future.

As an organisation committed to evidence based practice, BMJ Learning has developed online methodologies that have been proved to work. We have been delighted to put these into practice to serve the needs of patients and clinicians in this area. We feel that the results show that these online learning modules are effective at helping doctors to learn about NICE guidelines and help doctors put these guidelines into action. We believe that we can continue to develop cost effective, high quality learning resources that will improve the way clinicians implement other guidelines.

### **This paper summarises**

1. The approach that we took
2. The results
3. The feedback from users
4. Conclusion
5. Contact details
6. Appendix

### **1. The approach that we took**

#### **Background**

The mission of the BMJ Publishing Group is "to publish intellectually sound material that will serve the needs of doctors, members, other health professionals, the scientific community, and the public."

In November 2003, the BMJ Knowledge division launched BMJ Learning ([www.bmjlearning.com](http://www.bmjlearning.com)), a comprehensive evidence based online learning resource for all doctors and other healthcare professionals in the UK. BMJ Learning has been producing online learning modules for over two years. It was specifically designed to support the new system that requires doctors to undergo yearly appraisal and revalidation every five years. BMJ Learning was built in line with doctors' learning requirements and has a continuing quality improvement cycle based on developing the site with users. It is based on best learning practice and allows doctors to:

- Assess their learning needs
- Plan and record learning activities
- Use learning modules built by BMJ Learning
- Have certificates of proof of their learning.

To meet the needs of NICE, we built a series of comprehensive interactive case histories on NICE recommendations relating to cancers of the breast, lung, and lower gastrointestinal tract.

This consisted of:

- An initial test (the "pre-test") to assess users' current knowledge
- A series of comprehensive interactive case presentations. At each stage of the cases the user was asked how they would manage the patient
- A final test (the "post-test"). This is a repeat of the pre-test to find out what users learnt from the module. It allowed users to compare their scores with other users
- An audit tool to encourage doctors to monitor their performance in referral after completing the module. This allows doctors to measure improvements in performance – comparing referral patterns before and after the learning intervention.

### **Detailed outline of how the tools work**

We built a series of interactive case histories on NICE recommendations in relation to cancers of the breast, lung, and lower gastrointestinal tract.

### **Assessment tool**

We built an online tool to assess GPs' baseline knowledge of NICE recommendations in relation to these cancers. The tool covered all aspects of the recommendations. The assessment tool was fully based on NICE guidelines.

The tool was in the form of "best of many" multiple choice questions. This is a new type of multiple choice question and is quite different to "true/false" type questions. Only rarely in medicine is a statement absolutely true or false: in view of this, true/false questions have now largely been discarded by educationalists in the UK and the USA. In contrast the "best of many" format enables clinicians to train and test their knowledge and skills in real world clinical scenarios.

We built the tools with users. We assessed how a sample of UK GPs performed on the assessment tool and then adjusted it as necessary so that it was set at the right level. We used GPs who are part of our user group and also GPs who are part of the National Collaborating Centre for Primary Care to help us validate the initial assessment.

### **Educational tool**

We then built an online educational tool to increase doctors' knowledge of the recommendations regarding cancers of the breast, lung, and lower gastrointestinal tract. This tool was interactive and covered all aspects of the recommendations. We put the modules on the home page of the website and

on the most prominent place on the learning resources page. Learners first clicked on “start the module.” The first page was an outline of why this topic is important and the learning outcomes from that module. Next the learners came to an introduction that explained in detail what the module was about. The users then learnt about the recommendations in an interactive way. We supported the text with graphics and illustrations. At the end of the module we reinforced the keypoints related to the modules. We included a comprehensive list of references with live links to appropriate original articles and a list of further resources which included the full text of the relevant NICE guidelines. Finally we encouraged the users to reflect on the learning experience by writing their thoughts on what they had learnt. We also enabled them to print out a certificate of completion stating that they had passed this learning module. Users were able to record the fact that they had completed the learning modules in their professional development plan. The completed modules will count towards their eventual successful appraisal and revalidation. We built the modules around competency based learning outcomes – that is we built them to ensure that, on completion of the modules, clinicians were competent to perform the relevant tasks taught in the modules.

### **Audit tool**

We built an audit tool to encourage users to monitor their performance in referral after completing the module. This allowed doctors to measure improvements in performance – comparing referral patterns before and after the learning intervention.

### **Editorial process**

We have a robust editorial process and these modules went through this process. Our in-house team of expert medical writers wrote the modules. These writers are clinicians and worked with our panel of users to ensure that the modules were of a high standard. They also made sure that the modules were pitched at the right level for GPs and that we used the lessons learnt in our continual quality improvement process to ensure that the content and the style of the modules were of a high standard. All the modules were peer reviewed by experts in the context of NICE guidelines. The modules were also reviewed by NICE. We then arranged for the modules to be copyedited and published on the site. We also arranged for the modules to be reviewed by our panel of educationalists to ensure that they were educationally sound.

Here is what Dr Robert Galbraith, Director of the Center for Innovation at the National Board of Medical Examiners, USA said about the modules:

“I worked through the three modules I thought the modules were very well done, and I suspect that they have strong potential to be useful for self-directed learning and improvement. I also think the decision to focus on these three topics, in effect to “cut where the grass is high,” is very appropriate both educationally and for raising community and system awareness and improving care. In terms of assessment, I could produce a few quibbles around the more technical aspects of item-writing, but overall I was impressed.”

### **Marketing and communications plan**

We set up a targeted campaign to ensure that as many GPs as possible did these modules. To market the modules we:

- Placed a prominent link to the modules on the homepage
- Placed a prominent link to the modules on the learning resources page
- Sent emails to relevant groups of existing users to inform them of the new modules
- Published a filler in the *BMJ* about the modules
- Attended the NICE conference in November 2005 to promote the NICE modules
- Held a prize draw for people who completed the modules.

## **2. Results**

### Lower gastrointestinal tract cancer module

1528 users completed this module. Their breakdown by profession is as follows:

GPs	1241
Hospital doctors	221
Nurses	57
Managers	9
<b>Total</b>	<b>1528</b>

The pretest and post-test scores are as follows:

	Mean	Standard deviation
Pretest score	52.7	45.9
Post-test score	79.1	8.84

Mean improvement in score: 26.4 (95% confidence interval 21.7 to 31.1, p value < 0.001)

Doing the module enabled users to improve their score by a statistically significant amount.

### Lung cancer module

1511 users completed this module. Their breakdown by profession is as follows:

GPs	1125
Hospital doctors	298
Nurses	81
Managers	7
<b>Total</b>	<b>1511</b>

The pretest and post-test scores are as follows:

	Mean	Standard deviation
Pretest score	62.6	19.8
Post-test score	86.6	12

Mean improvement in score: 24 (95% confidence interval 21.5 to 26.4, p value < 0.001)

Doing the module enabled users to improve their score by a statistically significant amount.

### **Breast cancer module**

1563 users completed this module. Their breakdown by profession is as follows:

GPs	1232
Hospital doctors	233
Nurses	87
Managers	11
<b>Total</b>	<b>1563</b>

The pretest and post-test scores are as follows:

	Mean	Standard deviation
Pretest score	66.2	24.4
Post-test score	94.3	8.2

Mean improvement in score: 28 (95% confidence interval 25.9 to 30.1, p value < 0.001)

Doing the module enabled users to improve their score by a statistically significant amount.

### **3. Feedback**

#### **Qualitative feedback on whether users found the tool a useful addition to the other resources provided by NICE**

##### **Immediate feedback**

Users gave the following feedback immediately after completing the module.

##### **Suspected breast cancer: when you should refer - in association with NICE**

We received 384 individual pieces of feedback on this module. The feedback was overwhelmingly positive. Examples of the feedback are as follows:

"Quite useful, nice reminder of the current guidelines, great! Enjoyed it at the end of a full surgery."

"Good module, but you can't help thinking that anything less than 100% isn't okay?? However we have good guidelines here from NICE, thanks for integrating them into the module."

"Very useful teaching experience, will use in practice associated with Practice based Significant Event

Audit"

Other points that users made included the fact that we could have mentioned more about the needs of patients from ethnic minorities. One user mentioned that his local hospital did not allow him to work to the guidelines. One user mentioned that you should always seek consent before making a referral. A few users said that the module was not challenging enough. Some users said that the module should have more women who did not need to be referred urgently. One user commented that the module could not teach you the clinical skill of examining breast lumps.

All the feedback is listed below in the appendix.

### **Suspected lower gastrointestinal tract cancer: when you should refer - in association with NICE**

We received 351 individual pieces of feedback on this module. The feedback was overwhelmingly positive. Examples of the feedback are as follows:

"I used to think that I know enough about the topics but its wrong. I realised it only after doing the module. thanks a lot for giving me the insight. I will do rest of the module and suggest others to do this as well"

"I found this very useful. I now have a better understanding of NICE guidelines and the referral process. History taking and examination including rectal examination is important. Clear explanation of symptoms is paramount. I may do an audit of my referral process using NICE criteria"

"Much more useful and memorable than just reading the guidelines. Would like more NICE modules in future. Thanks"

"Proved to me that knowing the NICE guidelines and actually putting that knowledge into clinical practice is not as easy as it seems. An excellent module. Thank you"

"Helped to apply NICE guideline in my practice"

Other points that users made included the fact that multiple choice questions sometimes do not reflect their own personal working conditions. One user found the module a bit repetitive. One user found the guidance to be too rigid. Two users mentioned that their local hospital did not allow them to work to the guidelines. One user commented that it should have mentioned more about faecal occult bloods.

All the feedback is listed below in the appendix.

### **Suspected lung cancer: when you should refer - in association with NICE**

We received 385 individual pieces of feedback on this module. The feedback was overwhelmingly positive. Examples of the feedback are as follows:

"This module has made me realise that my threshold for referral was definitely too high. I'll be much more sensitive to the possibility of lung Ca in future. Quite sobering."

"Good, looking forward to more covering all the nice cancer referral guidelines"

"Good - I will alter my referral behaviour"

"Useful - I will refer even earlier now!!"

"I have just started as a GP registrar at the beginning of my VTS. I think this module was very useful. Not only did I learn but could also prove to myself that I have. It will make me more confident in dealing with patients who present with haemoptysis and prolonged symptoms such as shortness of breath on the background of smoking."

"It must work as I have not touched this module since december and I have remembered most of my mistakes and corrected them."

Other points that users made included the fact that multiple choice questions sometimes do not reflect their own personal working conditions. Three users mentioned that their local hospital did not allow them to work to the guidelines. One user said that he did not see enough patients to enable him to do an audit. Some users said that the module should have more patients who did not need an urgent referral. One user found the module too easy.

All the feedback is listed below in the appendix.

### **Email questionnaire – did you put the guidelines into practice?**

We emailed users six weeks after they had completed the modules to see if they had put the guidelines into action.

#### **Suspected breast cancer**

We emailed 1563 users. 369 users replied. The response rate was thus 24%.

#### **Knowledge of NICE guidelines before doing the module**

55 users had never heard of the NICE guidelines.  
150 users had heard of them before but never seen them.  
92 users had seen them before.  
68 users were familiar with them.  
4 users weren't sure whether they had seen them before.

#### **Putting the guidelines into practice**

Since completing the module, 74 users had seen a patient that they suspected had breast cancer.

Of these 63 users had referred patients with suspected breast cancer since completing the module.  
47 said that the module helped them put the guidelines into action.  
6 said that the module did not help them put the guidelines into action.  
10 weren't sure.

295 users had not seen any patients with suspected breast cancer since completing the module.

Of these

195 users thought the module would definitely help them put the guidelines into practice in the future.  
73 users thought the module would probably help them put the guidelines into practice in the future.  
7 didn't think the module would help them put the guidelines into practice.  
20 weren't sure.

#### **Other comments**

Many users said that doing the module had increased their confidence in implementing the guidelines. Many users said that their awareness of breast cancer had increased and that they would refer more appropriate patients and that they would refer urgent patients more quickly. Some users said that they would not feel guilty about referring as they would know that they were following the guidelines.

#### **Suspected lung cancer**

We emailed 1511 users. 278 users replied. The response rate was thus 18%.

### **Knowledge of NICE guidelines before doing the module**

38 users had never heard of the NICE guidelines.  
138 users had heard of them before but never seen them.  
69 users had seen them before.  
30 users were familiar with them.  
3 users weren't sure whether they had seen them before.

### **Putting the guidelines into practice**

Since completing the module, 64 users had seen a patient that they suspected had lung cancer.

Of these 42 users had referred patients with suspected lung cancer since completing the module.  
37 said that the module helped them put the guidelines into action.  
2 said that the module did not help them put the guidelines into action.  
3 weren't sure.

214 users had not seen any patients with suspected lung cancer since completing the module.  
Of these  
150 users thought the module would definitely help them put the guidelines into practice in the future.  
53 users thought the module would probably help them put the guidelines into practice in the future.  
4 didn't think the module would help them put the guidelines into practice.  
7 weren't sure.

### **Other comments**

Many users said that doing the module had increased their index of suspicion for lung cancer. Some users said that they would be more proactive in making referrals – that they would refer earlier or more directly or more appropriately. Some users said that the module helped them know when an immediate as opposed to urgent referral was necessary. Some users said that they were already aware of the guidelines but that doing the module had helped confirm their practice.

### **Suspected lower GI tract cancer**

We emailed 1528 users. 241 users replied. The response rate was thus 16%.

### **Knowledge of NICE guidelines before doing the module**

33 users had never heard of the NICE guidelines.  
94 users had heard of them before but never seen them.  
70 users had seen them before.  
43 users were familiar with them.  
One user wasn't sure whether they had seen them before.

### **Putting the guidelines into practice**

Since completing the module, 71 users had seen a patient that they suspected had lower gastrointestinal tract cancer.

Of these 51 users had referred patients with suspected breast cancer since completing the module.  
45 users said that the module helped them put the guidelines into action.  
One user said that the module did not help them put the guidelines into action.  
6 weren't sure.

170 users had not seen any patients with suspected lower gastrointestinal tract cancer since completing the module.

Of these

116 users thought the module would definitely help them put the guidelines into practice in the future.

44 users thought the module would probably help them put the guidelines into practice in the future.

3 didn't think the module would help them put the guidelines into practice.

7 weren't sure.

#### **Other comments**

Many users said that doing the module had increased their confidence in implementing the guidelines. Many users said that it had enhanced their decision making. Some users said that they would refer more urgently and earlier. Some users said that they would be more aware of red flag symptoms.

#### **4. Conclusion**

We have been delighted to put our online educational tools into practice to serve the needs of patients and clinicians in this area. We feel that the above report shows that these online learning modules are effective at helping doctors learn about NICE guidelines and that they help doctors put these guidelines into practice. We believe that this is a cost effective way of reaching doctors. We would be delighted to develop further learning resources that will improve the way clinicians implement other guidelines.

#### **5. Contact details**

Name: Dr Luisa Dillner

Address: BMJ Learning, BMJ Publishing Group, BMA House, Tavistock Square, London WC1H 9JR.

Email address: ldillner@bmj.com

Telephone: 020 7383 6671

## 6. Appendix

### **Suspected breast cancer: when you should refer - in association with NICE**

We received 384 individual pieces of feedback on this module:

"A good reminder of the nice guidelines."

"Useful update"

"Excellent module with some good, practical examples."

"Excellent, clear module."

"Very useful, clearly presented helpful module."

"Very useful."

"Quite useful but important informative module - vital for Primary Care Clinicians"

"Helpful review of Nice guidance and reminder regarding presenting Sx and signs suggestive of breast cancer."

"Useful module. I seem to be referring appropriately except I do not need to refer urgently in younger women (under 30) with a soft mobile lump that is not enlarging and with no family history of Ca breast. Reminder about mens breast cancer useful although I haven't seen a case in 30 years!"

"A useful update"

"Precise, clever and understandable. Thank you very much."

"The guidelines are relatively straightforward - but this is a useful revision"

"Useful"

"This module offers "real world" cases which challenge most primary care physicians. Very informative and quite challenging."

"Very good module"

"Useful and relevant"

"Useful reminder of NICE guidelines."

"Very interesting, revealing and systematic in presentation"

"Good refresher for a clinically difficult condition, presentations are not typical as case scenarios so individual judgement is also required. Would have been more helpful if prevalence of condition and special needs of asian and other overseas community mentioned."

"Useful review of guidelines and their application to clinical scenarios."

"NICE guidelines reminder"

"Very good rapid review"

"I have found this exercise useful in refreshing my memory on this important condition. I took the test in the comfort of my home and came away from my PC more knowledgeable. Thanks to BMJ learning."

"Very useful module-helped reassure me on my referral patterns."

"A good recap of the nice guidelines put into clinical scenarios"

"Unfortunately our local hospitals will not see women under the age of 35 years as urgent breast referrals, so it is impossible to apply the principles in this module to these women. The evidence anyway is that whatever guidelines are used, a significant proportion of breast cancers will be found in those referred non-urgently. As such the only rational service would be one seeing all referrals within a limited time - eg 4 weeks. This is what local providers were offering prior to the introduction of the 2 week wait system. Since, non-urgent referrals waits have increased to 3 months. It is likely that more women have died as a result of the 2 week wait system. Ideally all breast lumps would be seen very quickly. Obviously this module encourages us to refer almost everything urgently anyway, so perhaps it has the same outcome!"

"Thank you for this quick and helpful reminder about the referral guidelines of breast lumps"

"Congratulations on covering all salient points of this topic in a stepwise manner. Thank You."

"Very concise. The audit is important to make sure the learning points are put into practice."

"Memorable way of emphasising key messages."

"It is very easy to forget some details about breast cancer. This module has helped me to remember them."

"Over-referral as a tendency is better than the converse. Reassessment should be the rule by the same doctor as a preference; rather than simple reassurance alone as denial readily sets in with some patients after the initial consultation and reassurance. Any further breast changes, especially in a patient in whom the finding is not initially confirmed by a professional should be reassessed and encouraged actively by the doctor as part of the reassurance process. The expected time to the hospital appointment should be stated to the patient who should be encouraged to get back in touch if this is not fulfilled."

"It can be difficult to diagnose breast cancer and primary healthcare professionals may be unsure whether to refer particular patients. An important cause of delay in referral is the number of investigations doctors do and whether they wait for the results before they refer to a specialist. I felt that the module was very in keeping with the above aim giving clear and concise advice regarding a common problem. As a consequence I feel that I do not refer too many patients to an already very busy department and therefore more comfortable with the decision to do so."

"Good synopsis of clinical scenario with sensible suggestions and feedback."

"Useful summary of referral recommendations"

"An excellent module, very brief but very informative."

"Useful reminder of the guidelines"

"Very straightforward module. Clear, non wishy-washy guidance. Fail this and you shouldn't be seeing patients."

"A useful reminder, and felt the case study scenarios were helpful."

"Clarified things for me regarding referral"

"Useful but could have included more on drug therapy"

"A useful update, found the scenario style questions very helpful"

"The "One stop shop" for breast problems has made pre-referral investigation redundant. Hopefully we GPs are not going to overwhelm these clinics with the worried well or they may not be able to see the truly urgent cases quickly"

"Excellent learning tool. This has clarified several points that I was unsure about. Trainee Nurse Practitioner"

"Gained new knowledge esp. re: unilateral breast eczema, over 50 man with lump and bloody discharge in young woman"

"Excellent revision"

"Found it very helpful, especially the case scenarios, not mentioned are lumpy feeling on the axillary tail, which are not discrete."

"Quite useful, nice reminder of the current guidelines, great! Enjoyed it at the end of a full surgery."

"Good overview"

"Very good, easy to understand."

"Useful revision"

"Excellent module, useful revision"

"Fairly straightforward / common sense but a useful revision tool"

"Clear concise and memorable"

"Sometimes the most clinically innocent of breast lumps occurring in teenagers do turn out to be malignant. Simple reassurance alone is a questionable practice with any patient who thinks they have found a lump even if this is not confirmed by the professional. An encouraging attitude on the part of the doctor to the woman to attend for reassessment should she believe that a worrying change has taken place in her breasts is only kind. Even anxiety ridden patients requiring frequent breast checks sometimes develop breast cancer."

"Helpful and practical"

"Very practical"

"Very informative"

"Excellent module and very relevant to General Practice."

"Good clinical scenarios"

"Excellent article every health professional should know. Well done BMJ Learning. Could you please consider printed copies sent to BMJ members if they request a particular module of interest, as sometimes time factor is a big issue for people like me with family commitments. Thanks."

"Reassuring."

"Very useful - but is a pass mark of 70% acceptable for such a vital condition?"  
"Useful revision of NICE guidelines"

"Very very useful, thanks."

"Reassuring, good revision"

"Painless way of learning NICE guidelines"

"Very good overview"

"Useful way of becoming familiar with recent guidelines"

"Good concise module"

"Very useful module."

"I learned something."

"Reminder NICE guidelines for practice suspected breast cancer"

"Good revision. Inspired confidence in my own referral criteria for breast cancer"

"Good revision. Simple and easy to follow."

"Excellent"

"Useful refresher"

"Very helpful"

"Useful revision"

"This module has sharpened my senses in arresting one of the main killers of women. Early recognition gives women a chance."

"Very useful reminder. One worry - no one else has noticed that they suggested referring a patient without consent for urgent referral - I agree she should be strongly advised and even tell her that there is a possibility of cancer but the patient has the final say - it's called autonomy."

"Helpful revision"

"Clear and to the point."

"Useful clarification of who justifies an urgent referral"

"Good module. Easy to follow."

"Very useful"

"Very helpful guidance."

"Well presented, good scenarios. Referral criteria very clear."

"Excellent review."

"Well presented and useful"

"Good concise revision"

"This module was refreshing and updating."

"Very useful. Would like to know the percentage of women who are sent for both urgent and routine referrals turning out to have cancer. Also it would be useful if you could add an option of review in four weeks in nearly every scenario to make it more tricky and specific."

"Useful"

"Judging from the results the questions were not challenging enough. Very good revision and slight change of practice... more urgent referrals."

"Useful review"

"Clear advice. Routine appointments for breast disease don't seem to exist anymore which is excellent. I greatly admire the local one stop clinic. A little facetiously - I wonder if a woman could complete an online questionnaire such as this and if referral indicated get appointment printed off. No need for GP???"

"Very useful and clear"

"Excellent clear review of management of breast lumps in general practice."

"Clear, concise information. Helps to reinforce knowledge"

"Concise and informative"

"Very good, and just to prove the educational value the post test was better than the pre test result"

"Useful module and up to date useful advice regarding audit"

"Thank you, very informative"

"This module tightened up my criteria for referral."

"Helpful refresher, good clinical examples."

"Useful referral aid."

"Well presented and concise."

"Enjoyed it."

"Useful overview with repetition helping reinforcement"

"Excellent module and very relevant"

"Useful. Good selection of cases for questions"

"Informative and useful review of indications for referral. The questions could have been slightly more challenging."

"Very useful module."

"Helpful, if a little over simplified."

"Repetitive, not challenging enough."

"Excellent concise overview which helped clarify which scenarios are "urgent""

"I now feel more comfortable in decision making as to referral."

"Helped to clarify in my mind the referral guidelines."

"Very useful, helps in your daily practice as a GP. Nice selection of cases."

"Good module, but you can't help thinking that anything less than 100% isn't okay?? However we have good guidelines here from NICE, thanks for integrating them into the module."

"Very useful module, especially helpful referral guidance of younger ladies."

"GOOD REFRESHER"

"An excellent refresher course to clarify matters"

"Quite helpful overview."

"Great module, clarifying the referral guidelines."

"Very interesting and useful test."

"Helped me to clarify certain grey areas, useful in my practice"

"Very useful teaching experience, will use in practice associated with Practice based Significant Event Audit"

"Excellent. It will help to channel appropriate referral"

"Enjoyable and informative."

"Another very useful and clear module. Thanks."

"Great, I am sure it will help me a lot in my practice."

"Very good refresher module."

"Helpful advice especially for younger ladies"

"Useful revision"

"Helpful clear summary"

"Great way of improving our knowledge, the pre/post/test as well as the guidelines, though would be better if herceptin issue was on."

"Excellent Module , I enjoyed doing it. Thank you"

"Got a bit distracted with the mamogrammes. In fact, mamogram is not available from gp request locally so they have to be referred by breast clinic anyway, so perhaps in real life, I would have referred"

"Well thought out module"

"Excellent review of indications for referral"

"Clinical scenarios were very straightforward unlike real life!"

"Easy to use and clear advice."

"Simple - but reassuring that I do the "right thing"

"Useful reminder of when to refer urgently."

"Basic but good"

"Very good, straightforward approach, would recommend to others"

"It's great, we always need such updated guidelines. And the idea of a test is great too because we think we know everything but when we come to test issues we'll see the truth of our assessment of knowledge."

"Got me thinking!"

"Reassuring to older GPs who felt that letters from hospital specialists in the past have been dismissive when the lumps have proved to be benign."

"Excellent review of less common clinical situations, I learned a lot"

"Good clear module."

"Good refresher."

"Helpful workshop, I am now more confident"

"Clear, unambiguous advice"

"Good to clarify referral guidelines"

"Useful to reassure me what should be referred."

"A very good module, just to the point needed in general practice"

"Useful module - thanks"

"A good guide for GPs"

"A useful reminder"

"Good straightforward module, could include more clinical information regarding breast condition."

"Very good"

"Useful guidelines"

"I'm happy I'm on top of this one....will use mammograms less for painful breasts in very anxious women!"

"Excellent review of less common clinical situations."

"Useful module"

"Module helpful. It clarified issues surrounding presentation and how to manage them."

"Good update."

"Very good module"

"Need more modules please"

"Good quick refresher"

"Excellent introductory tool to an important topic."

"Enjoyable and informative"

"Good clear module highlighting features of breast cancer, more information on benign causes would have been beneficial."

"Useful revision"

"Excellent"

"Excellent"

"Well constructed module, which is highly relevant to GP, great."

"Very educational and informative"

"A very useful and educational module"

"A very worthwhile exercise. I taught myself to refer two less of the cases appropriately when comparing pre and post tests"

"Excellent review"

"Very good module, realistic presentations in the case studies and actually improved my score to 100! Took twenty minutes and well worth the time invested. Learnt a couple of things from it."

"Helpful. Now reassured that I'm not referring too many patients urgently."

"Helpful quick test"

"Clear responses and as such helpful in future referrals"

"Excellent use of case studies"

"Very good, excellent format."

"Helpful realistic cases;helpful update on male presentation of breast cancer"

"Very useful review. Appropriate urgent referral reinforced."

"Useful revision."

"Excellent review"

"Succinct and helpful"

"Good module and helped clarify referral criteria and urgency (increased my score to 100%)"

"Very useful"

"Very clear useful module with lots of practical advice."

"Practical, clear, very useful tutorial on a relatively common situation"

"Reassured that I am referring appropriately in females (but learnt regarding males)."

"Very useful review."

"Excellent, clear, reassuring that I'm not over-referring urgent cases."

"Useful cases and advice"

"Excellent module - good revision, learnt about males."

"Useful module. Guidance useful, although does assume reliability of clinical skills, such as deciding that lump is mobile."

"Clear and informative."

"Another useful update."

"Good"

"Well written and clear. The on-line learning resource is easy to do in a spare 30 minutes in the surgery and of the highest quality clinical evidence and best practice, and a quick easy useful method of updating a topic."

"A useful reminder of NICE guidelines"

"Learnt at least one new thing; Unilateral eczema that does not heal, needs referral urgently. Thanks"

"Useful, practical, informative, currently relevant, user friendly module."

"Excellent review. A good base for then re-reading the NICE guidelines in more detail."

"Excellent module. One or two cases fumbled me, I will know better next time."

"Useful revision"

"Excellent, very useful"

"Very informative"

"Confirmed good practice and reminder about men >50."

"Excellent, good reminder"

"Very useful, informative, helps to improve clinical practice and time effective."

"Concise review of NICE guidelines, very useful."

"Useful revision"

"Useful"

"This is a very succinct, clear and useful update."

"Good reminder, useful recap"

"Useful practical module"

"I have had confirmation that my referral patterns are probably about correct. I found the case histories believable, relevant and useful."

"Very useful review"

"This has helped me clear up a few grey areas and now feel confident in referral of breast disease"

"concise and useful guidance"

"Very good"

"EXCELLENT WORKOUT. SHORT AND PRACTICAL"

"Easy to use programme, sensible advice."

"Scenarios that make you think"

"Helpful reminders"

"Useful refresher"

"A really useful overview and reassurance that I am not overreferring."

"Excellent guide to aid appropriate referrals"

"It helps me feel more confident about the reasons to refer."

"Useful refresher, especially regarding management of younger women."

"Enjoyable learning module"

"Good on the "grey areas""

"Very helpful, and reassuring. Have had some complaints from a local breast clinic about excessive referrals, but this module confirms that there are few situations when we should not make urgent referral. I think we have got it about right."

"Useful module. Felt I must be over referring when going through module but re-assuring to know this is not the case"

"Very useful exercise."

"Utterly relevant, interesting, very good use of 30 minutes."

"Very concise and helpful"

"Very useful refresher"

"Helpful."

"Really useful overview especially for clinical features overriding age."

"Good module, better for including some scenarios of benign disease"

"Good straightforward advice"

"Good refresher, gives me more confidence about the urgency of referrals."

"Excellent overview with a good range of detail."

"Helpful, especially to be reminded about male patients! Good to have pre and post testing around clinical scenarios. Thank you."

"Useful revision and has increased my awareness of the NICE guidelines"

"Useful module. I don't refer but seems to follow the referral pattern at our one-stop clinic. We find several cancers in the routine referrals every year however."

"Good for confirming the appropriate course of action in the not so clear cut areas."

"Helpful."

"Well presented, helpful. Now have more confidence of when a referral needs to be urgent."

"Useful for updating."

"Useful exercise. Helped to consolidate my knowledge of referral guidelines."

"Useful revision, clarified some doubts especially on younger women."

"Very helpful module."

"I like the emphasis on cases"

"Good refresher"

"Good review of guidelines."

"A useful tool but more younger patients than I usually see."

"Cases have highlighted important criteria for referral and the urgency of referral to breast clinic - and when to follow up in the primary care setting."

"Very useful"

"Very useful"

"Useful module for clarifying management of breast symptoms."

"Unfortunately it can't be taught very easily to feel and distinguish breast lumps; the module is useful though."

"More helpful than just reading the NICE guidelines"

"Useful refresher"

"Very useful, good to use the case study approach."

"Brilliant, learned more"

"Good mix of cases"

"Excellent"

"Useful, I like the one about males with breast lump. I have never come across one but if I do I know now that I should refer them urgently."

"Case related approach helps interpretation of guidelines."

"Good."

"It's very good to refresh my knowledge and a good learning exercise for me."

"Clear guidelines for primary care"

"A useful and practical refresher module."

"Excellent module, very clear guidelines and advice"

"Very helpful especially on the under 50 year old cases."

"Very practical and useful."

"Excellent review and learning tool for the new guidelines. Thank you."

"Excellent"

"Good module covering important issues"

"Quite good, I would have liked more on benign lumps and treatment of pain"

"Useful"

"Quite clear guidelines for suspected breast cancer. Probably another module on mainly benign breast mass and management guidelines would be good. Thank you."

"Excellent title for updating knowledge in ca breast."

"Very handy for managing breast lumps in primary care."

"Good module"

"Very clear and helpful. More info on diagnosis of benign breast disease would be useful."

"Very Useful"

"Very good, I still am surprised at NICE not discussing the pill and breast cancer and the fact that breast cancer is common in women in their forties who are still not being screened in most places."

"Excellent module"

"Good module, yet maybe a bit too easy."

"An excellent module for developing knowledge and becoming more aware of guidelines of when and where to refer."

"Very useful"

"Excellent module"

"Good module giving valuable referral guidelines"

"Extremely useful refresher."

"Clear concise guidelines, don't agree 100% with advice but helpful."

"Good, highlights referral criteria. Further info regarding screening and benign disease / primary care management would be useful."

"Reinforces the need to refer on findings and history at that time not on previous findings alone"

"Excellent teaching material"

"Useful in clarifying the different needs for urgent and non urgent referrals"

"Interesting module."

"Good and informative."

"Good. More detail about benign breast disease would be useful."

"Easy to read and well planned."

"Simplified referral criteria, clear and concise details."

"Useful, many DGH's still have guidelines requiring review of all pre-menopausal women after a period, before referral."

"Useful module, clarified a few things"

"Useful revision of precise referral guidelines but more simplified than cases seen in general practice. A few more cases that are less obvious might be more useful in testing skills."

"Excellent - clear guidelines"

"Excellent module, clear and informative and not too long"

"Good module but more cases in which urgent referral is not indicated would be helpful"

"Very useful to check my practice."

"Clear, well-stated presentation"

"Very good, concise."

"Very useful. Would appreciate a bit more on what is appropriate for routine referral."

"Very good"

"Very clear and straight forward."

"Always good to refresh knowledge in this area."

"Good module, could have more examples where there isn't a need for urgent referral"

"Interesting, appropriate to general practice but I would have liked more on non-urgent referrals."

"Good, clear and informative"

"Liked the pre and post test format."

"I agree more information on when to refer routine would be useful."

"Useful, but mostly urgent referrals. Gives clear points which indicate urgency of case."

"Helpful, especially the example regarding men >r than fifty years, and the example of bleeding from nipple."

"Very good"

"Useful reminder"

"Helpful to check my current practice against best practice guidelines"

"Good module but more cases warranting non urgent referral would be helpful"

"Very good but could have done with more non-urgent referral cases."

"Very helpful to sharpen up thoughts"

"I would also like scenarios for non urgent referral please"

"Nice module, sorry about the pun but I agree that I would have liked to know more about non-urgent referral and how long this is likely to be acceptable"

"Thank you"

"Concise and good revision to check one's working within the NICE guidelines for refering breast cancer."

"More non urgent examples would have been useful"

"Pleasant and concise set-up, helpful knowledge-booster. Could do with more examples on routine referral."

"Clear questions and answers. It would be worth an additional module looking at other breast symptoms"

"Good to have a refresher but did not learn much that was new."

"Simple to follow and straightforward in outcome. No longer in primary care but may have to answer difficult questions in a consultation about absence."

"Very good and helpful."

"Concise and brief module."

"Good module but agree with others' comments that there were no examples of routine referrals"

"Great to check I'm doing okay"

"Good module would like to see my guidelines/knowledge on men's breast cancer"

"More confident about whom to refer."

"Very good and useful"

"Pleasant and concise module. Certainly knowledge boosting. More cases not needing urgent referral would be helpful."

"Very practical and well thought out questions, thoroughly enjoyed it"

"Very useful and practical module"

"Good module but needs to discuss more cases"

"Good, concise. More cases on non-urgent referrals would have been helpful"

"Very good, clear and concise information on current NICE guidelines for referral. Thanks."

"Useful module but I agree with the other responses about indications for routine referrals."

"Found it useful, did not consider role of ultrasound"

"A useful module, I was surprised I was not far off on the pretest, but improved on the post test. As above more non-urgent scenarios might have been useful."

"Good module. More detail with under 30, reference when on Hormon/BC and what is urgent."

"Very helpful module, it would have been useful to have some more focus on more routine referrals."

"Very good, I feel more confident now."

"Agree - would like more on what can be referred routinely"

"This is a concise comprehensive crisp module for beginners. For medical professionals not specialised in oncology this is a start up for primary care. Would be more informative if a few clinical scenarios are given with a complete work up"

"Extremely good. An eye-opener for all."

"Good clear vignettes. Reassuring regarding one's own management, confidence building."

"Good topic for general practice and guideline for urgent and non urgent referrals"

"Good clear revision"

"A useful module, which covered a wide range of clinical scenarios"

"Very good module from which I learned a lot. Some more "not urgent" referrals would be good."

"Very useful module. I was pleased to see that my current practice is correct. I had one or two answers in the pre-test which changed after doing the module."

"Clarified decisions nicely."

"Very clear for most cases, would appreciate module on non-urgent referral"

"Brought out the important points well."

### **Suspected lower gastrointestinal tract cancer: when you should refer - in association with NICE**

We received 351 individual pieces of feedback on this module:

"Useful refresher"

"Helped me find my way round the NICE guidelines"

"Concise and up to the point information presented in a stimulating way!"

"This was an excellent module. Realistic case histories which made you think"

"Very useful - I had hoped that I was better than the post test scores show"

"Useful exercise. Clearer now on time scale for symptoms and cut-off levels of HB for men and non-menstruating women ( and , respectively). Ignorant about Beta Thalassaemia. Not seen it once in years in rural East Yorkshire. More confident in reassuring benign, intermittent constipation in the absence of other alarm Sx"

"Useful update on primary/secondary care interface"

"Very helpful"

"Very good reminder"

"I used to think that I know enough about the topics but its wrong. I realised it only after doing the module. thanks a lot for giving me the insight. I will do rest of the module and suggest others to do this as well"

"very useful thanks"

"Very useful"

"Initially I didn't like the lack of choice in the pre-test but after the module I understand why - you have just got to get on and refer. My two week rule referrals will be increasing I'm afraid"

"I am much clearer on referrals now"

"This module is very useful for reinforcing and refreshing previous knowledge"

"Helpful in consolidating guidelines on urgent referral"

"It is a very useful and informative module"

"This is a wake up call to GPs but secondary care will be able to cope with it"

"Good. Clarifies when to refer 'borderline' symptoms"

"I thought I knew when to refer, but after reading this module, it certainly helped me understand better, very useful"

"Excellent module, clear guidelines, helpful information on coeliac and crohns as well"

"Very good learning module"

"Clinical scenario's are always helpful"

"Useful reminder"

"Excellent module, thought provoking case histories"

"Good module"

"Useful. Probably have referred too few"

"Excellent as usual"

"Adds confidence to using NICE guidelines: good case histories"

"Very helpful. I need to refer more readily"

"Very useful"

"Learnt some new things. Many thanks"

"Helpful and simple to follow"

"Very challenging module, well put together with good clinical scenarios"

"Clear guidelines"

"Excellent module, the cases are very realistic and thought provoking"

"Useful resume"

"Good for reinforcing urgent referral criteria and when it's safe to reassure"

"This was a very helpful way of revising and reinforcing the new guidelines on diagnosing this condition"

"Very Useful and clarified referral indications"

"Clear guidelines"

"Urgent referrals are easier now that hospital have rapid access clinics. The problems come if their initial investigations are normal but the patient's symptoms remain"

"Very good"

"Good thoughtful study"

"It gives very clear guidelines on referrals ,thanks"

"Clarifies referrals .Useful"

"Quite helpful in simplifying and consolidating criteria for referral"

"Good refresher, good case histories"

"Very good module on clarifying the guidance for suspecting and referring patients with colorectal ca. I will definitely change my practice"

"Very useful module, thank you"

"Logical and clear guidelines: I'll make more urgent referrals now"

"Good clear module, some good learning points"

"Good for knowing when to do urgent referrals"

"This will almost certainly increase the number of urgent referrals I make."

"I am clearer about the indications for urgent referral"

"Good module"

"Useful and informative. Perhaps lower threshold for urgent referral than I previously had"

"Repetitive key points aided learning well"

"Good module with clear guidelines"

"Good Module. Helpful to know when to make urgent referrals"

"Very clear summary"

"Challenging and serious material - I will revisit this"

"Very clear, changed my thinking"

"Good module, sensible guidelines on when to refer"

"Important and well written module"

"Very Good Module - good to have the NICE guidelines translated into clinical scenarios"

"Good clear guidelines"

"I needed to brush up on the guidelines - I under referred on a couple so that was good to know"

"This was helpful and clear advice, with meaningful scenarios, I learnt something"

"Good and precise, new learning points"

"Concise, easy to grasp, good learning points"

"Old prejudices suitably bruised"

"Thoughtful questions that require sound knowledge of guidelines"

"Good"

"Interesting and stimulating. I feel more information/knowledge of the patient would often delineate referral"

"Very useful to define urgent referral criteria"

"Nice revision"

"Excellent and easy learning format. Thank you!"

"Very helpful interesting module"

"Very helpful in decision making in clinical situations"

"This module answered my doubts on referral criteria"

"Very good pointers and referral guidelines"

"Excellent examples to aid referral"

"It was interesting and useful. I gained more knowledge on assessing clients with Lower GI cancer"

"GREAT"

"I found this very useful. I now have a better understanding of NICE guidelines and the referral process. History taking and examination including rectal examination is important. Clear explanation of symptoms is paramount. I may do an audit of my referral process using NICE criteria"

"Thanks for a helpful"

"Very informative and enjoyable but took longer than expected to complete"

"Very useful"

"Interesting and informative. Will change my practice as a result of completing this module"

"Good module with sensible guidelines"

"If there is no satisfactory explanation for bleeding all patients need urgent referral"

"Good update on the NICE guidelines"

"Interesting - good way of presenting guidelines"

"I have learnt several things and it has clarified appropriate need for urgent referral for me"

"A useful module, criteria have slowly evolved over the years and this has been useful to consolidate modern guidance"

"Excellent set of Guidelines with useful learning bites and summary of recommendations"

"Clear guidelines that hopefully will improve my practice"

"Impressed with module"

"Useful scenarios. It underlines just how often urgent referral is the right response"

"This has made me aware of the NICE guidelines"

"These cases are always a challenge. No guideline is as sensitive or as specific as we would like and this is particularly so in this area. The test gives a practical way of presenting the new guidelines. Some of the related topics were a particular challenge. There are always cases that fall on the line!"

"A very useful reminder about when to refer"

"Practical and relevant to everyday practice"

"Very useful module with good examples to reinforce NICE guidance"

"Much more useful and memorable than just reading the guidelines. Would like more NICE modules in future. Thanks"

"Very useful guidance, relevant"

"Good update on NICE guidelines for referral"

"Very useful"

"Good example of the unreliability of MCQs as a method of knowing what normal doctors think. ) unexplained symptoms in an old man for more than weeks. Reassurance? suggest check MDU details in case he complains. ) no-one would answer a question about sickle cell/thalassaemia anaemia in the context of GI cancer without asking for GI symptoms and asking the the haematologist to look at the film. Nonsense in a definitive GI cancer assessment. ) TATT is one of the world's commonest symptoms (as is bad bowel behaviour - it is a cultural problem). No bowel history in a GI cancer assessment. Possibility of peptic ulceration apparently ignored in a definitive questionnaire. Obviously you only submit compliments. Of course I can pass these things if I want to. What I do in the normal world is thoughtful general practice. What consultants do is write stuff which they think would confuse housemen. I never look at blood results without their reference ranges. The pompousness of not providing any is typical of the RCGP etc. I don't think I'll bother with any more of these"

"Thank you, great way to improve knowledge"

"Good learning tool. Thanks"

"Useful reminder of NICE guidelines reminder"

"Challenging questions - more than some modules. Clarifies referral cases"

"Good overall. Reassuring regarding constipation management, helpful reminders regarding haematinics, practical"

"Useful module for revision"

"Learnt a lot. Thanks"

"A very useful module"

"Really good"

"Good update"

"A useful module with some challenging but common cases"

"Good tip on how doing fbc in pte with equivocal symptoms helps"

"Excellent module"

"Excellent learning module"

"Very informative and well presented"

"Very good, clear, simple. It's a good and useful way to increase my professional knowledge. Thanks"

"Very useful and good way to increase my knowledge"

"Very good learning module with some searching questions"

"Useful knowledge on when to refer GI patients"

"Thought provoking with some very useful tips"

"Another good module, useful clinical guidelines especially about beta thalassaemia and coeliac disease"

"Very good and pretty clear"

"Very good module, very educational"

"Excellent overview and well presented"

"Excellent module. Will lead to some change in my practice but local hospital will have to their two week wait guidelines as currently only patients over fifty years can be referred regardless of presence of mass or not"

"Excellent module"

"Concise and helpful"

"Good clarification on when to refer"

"Very helpful module"

"Helpful refresher"

"Good revision thank you. Lots of questions"

"Good guidelines but unfortunately our local hospital has a thirteen week waiting time for urgent appointments"

"Excellent refresher"

"Informative useful module"

"Good refresher module"

"When doing the case studies it seems that we should urgently refer everyone but on reflection not that many people give these symptoms or history but when they do I wish they would say "I have had 'X' for six weeks do think that it could be serious?" It always seems to be a little more hidden in real life!!!"

"Good guideline to relative importance of diarrhoea, rectal blood and anaemia in Lower GI Ca diagnosis"

"Good refresher"

"Good refresher"

"Excellent and challenging questions"

"Helpful module highlighting the complexities of the topic"

"A lot of haematology knowledge required!"

"Very good learning modules and helpful in daily practice"

"Excellent module, very useful information and advice on referral of suspected cases"

"Very good, fits well with our two week rule referral guidelines"

"GREAT SUMMARISER CLARIFYING WHICH NEEDS EARLY REFERRAL"

"Did not realise the pitfalls of diagnosis"

"Excellent module"

"I get a lot of referrals for gi studies cancer, this has been very useful to refresh my memory about urgent referral indications, thank you"

"Not as clear as the breast one"

"Very clear and up to date"

"Very interesting to put guidelines into practice"

"Thoroughly enjoyed the module. It was very useful especially as we are piloting a "Straight to Test" programme in Norwich"

"Very helpful module about when to refer and when to wait. Will make me more confident in interpreting FBCs!"

"Good refresher on who needs urgent referral"

"Excellent"

"Now I must read up about my haematinics - and what the difference is between ferritin iron and binding capacity – more work!"

"Excellent module"

"Excellent module, these guidelines help to take away some of the vagueries of when to refer in non clear cut cases"

"Nice module with comprehensive and different clinical cases"

"Good module - helpful & clear guidelines"

"Excellent - especially the bits on FBCs!"

"Very useful scenarios to reflect on"

"GREAT MODULE BUT A BIT REPITITIVE AT TIMES"

"This was more taxing than the usual module had to think quite carefully about this one"

"Excellent , good use of clinical cases rather than textbook learning material"

"Good practical"

"Good module, challenging"

"Very good module, learned a few things I have not been aware of before"

"Thought provoking problems which did not always require referral, so were quite realistic"

"Practically helpful"

"Good article"

"Good module"

"Useful"

"Better module than lung cancer, used non-urgent cases not just urgent"

"Excellent, concise, good clinical scenarios, well put together as learning material"

"Good update"

"Scenarios that make you think"

"Useful module"

"Good learning experience"

"Excellent"

"An excellent module with a broad variety of cases"

"Excellent module and a good way of reinforcing NICE guidance"

"Good with clear, easy-to remember guidelines.Helpful"

"Very practical - good mix of cases"

"Clear, concise, realistic scenarios"

"Challenging and enlightening, every GP should read this"

"Useful and a good format. Has improved my decision making for referral criteria"

"Excellent"

"Excellent . However what about the situation where someone has repeat symptoms having had a previous colonoscopy....ie how long does a normal colonoscopy last?"

"Good revision of NICE guidelines"

"Excellent"

"Best module yet, many thanks"

"Good learning method. Concise, clear guidelines"

"Excellent module"

"Excellent, I thought I had read the referral guidelines, but doing this quiz brought home some things that I had missed. It is a much better tool for learning"

"Very good"

"Excellent module"

"Excellent for reinforcing the NICE guidelines"

"Excellent, very clear and concise advice"

"Useful module"

"Good case histories and keeps cases simple to focus on those who need referral early"

"Proved to me that knowing the NICE guidelines and actually putting that knowledge into clinical practice is not as easy as it seems. An excellent module. Thank you"

"Useful to go rapidly through consecutive cases... makes a quick decision based on NICE rather easier than dealing with all the interpersonal stuff which imposes itself in real life"

"Good Module, thanks"

"Very useful module, simple guidelines clarify who to refer and with what urgency"

"Reinforced the guidelines but we have been using these for several years and should know them by now!"

"Very long but extremely helpful"

"Very useful with good teaching points"

"A very useful module"

"Excellent"

"Good module, it clarified my thoughts but I think I need to go over it again to consolidate"

"Learnt about ferritin and other diagnoses"

"Good module"

"This was an excellent module. I feel more confident in my ability to refer appropriately in this very important area of patient care"

"Useful, though I found some of the guidance rigid"

"Rapidfire cases get the messages home"

"Good module, simple to apply referral criteria"

"Good"

"Very good"

"Very good module, but I missed examples which would have dealt with the use/usefulness of FOBs"

"Scenarios that make you think"

"Very important module to clarify when to suspect and refer patients"

"Very good"

"Good of guidelines"

"Good revision"

"Important refresh or urgent referral"

"Excellent module - clarifies NICE guidelines"

"Differential diagnosis is difficult.Thanks for "the learning Bites" which helped making my mind up"

"Good"

"Fine"

"Very good.Made me think and clarified situations where I may have referred inappropriately"

"Very interesting and thought provoking case studies. A good way to fine tune knowledge"

"Clear and useful"

"Good module"

"Good module"

"Well presented and informative"

"Good"

"Useful and challenging scenarios"

"The scenarios were very realistic and helped to focus the guidelines-thanks"

"Good refresher"

"Most enjoyable - low folate and coeliac! will remember that"

"Highlights important guidelines for referral, very informative and engaging"

"Helpful"

"Good of management of lower GI disease"

"Helpful module"

"Useful clarification"

"GOOD REFRESHER"

"Good of referral guidelines"

"Helpful module"

"Useful - whilst not agreeing with all the actions given and thinking there was room for others, provided useful information"

"Good , good cases"

"Good scenarios"

"Good overview of guidelines"

"Informative, on occasions when offered options a, b, c or d I wanted option e!"

"Useful module, questions pretty testing"

"The key numbers I'll remember are , and . Refer if > weeks consistent symptoms, Hb < women and < men"

"Excellent, a bit of a brain teaser"

"Testing senarios - which highlight important points when considering referral of suspected large bowel cancer - also important aspects of interpreting FBC and iron studies discussed"

"Good module, good questions, useful tips"

"Good module"

"Generally good as I improved my score. Audit idea at the end was unworkable in primary care, too complex"

"Excellent"

"Pretty good and complete, now more confident on avoiding unnecessary tests"

"Excellent module.Good information on differentiating iron deficiency from other causes of microcytic anaemia"

"Very useful"

"Some of the answers for the 's age group surprised me and will increase my urgent referral rate considerably"

"Very good"

"Learning points were well illustrated and it made clear what time scales to use for what features. Definitely helpful in aiding decision making regarding referrals. Unfortunately for us an urgent referral takes weeks instead of the desired weeks"

"Excellent module, well designed questions, will do audit"

"Very interesting"

"In those over forty years with persistent (six weeks) change in bowel habit (favours diarrhoea) and rectal bleeding or those over sixty years with diarrhoea or rectal bleeding. Iron deficiency anemia and right iliac fossa or rectal mass also important. I was surprised to see that family history of bowel cancer seemed to have been played down as a sinister feature. It is a very good piece"

"Excellent module, once again very clear guidelines and good details regarding dx of anaemia, depending on ferratin levels"

"Very useful information"

"Very interesting module, good cases"

"First one I've tried, is helpful to clarify this difficult area, one comment - this is vital academic framework; but in practice eg change bowel habit to CHRONIC constipation - you can only in my opinion safely watch/wait (if middle aged/older) if you are sure that rectal/abdo exam is normal, may be very hard to detect a mass if obese(as is increasingly common); and bloods needed too. Similarly for post gastroenteritis chronic diarrhea; in my opinion I could only really agree that reassure only is appropriate in the circumstance as stated in the question that a rectal is done(perhaps not universal practice - with no rectal bleeding), but also surely the patient must be advised to return for prn in a few weeks. You see, succeeded in making me think about my practice!"

"Challenging cases, reflecting the complexities that truly do present themselves. Excellent"

"Take away message - unexplained iron deficiency anaemia and right iliac fossa mass = urgent referral"

"Good module, with challenging presentations"

"Excellent module, gave me a good insight into the topic. Very clear message put in a straight forward manner"

"Very interesting and useful, complex case histories"

"The Module is informative, but deficient from x rays or CT scans"

"Thank you for offering us knowledge!"

"Useful for checking referral criteria"

"I found this one of the most useful modules I have completed on the site. Pertinent in lieu of a significant event in the practice - a minor pearl of wisdom - rapid access rectal bleeding clinic does not necessarily mean within days"

"Excellent module, very good case histories to illustrate most important points in NICE guidelines"

"Very interesting module with good case histories"

"Very good"

"Excellent module"

"Very good - made me think. I thought I should have done better with the pre-test! It shows I needed the revision"

"Completed"

"Very helpful"

"Module was very good and particularly searching. I would hope that the tips regarding patient care beyond the clinical domain would be unnecessary in normal clinical practice"

"Very informative, relevant to general practice"

"Very interesting case studies"

"Interesting and helpful"

"Very helpful"

"Helped to apply NICE guideline in my practice"

"Good course. I thought constipation was more significant, I will probably end up referring fewer patients. My filter will be more efficient"

"Very helpful"

"Simplifies the referral process for suspected lower GI cancer. Very Helpful"

"Helpful, shows it is not easy to get referrals right every time"

"Very informative, a useful reminder to think of the diagnosis in the younger patient as well as the older"

"Again; good scenarios"

"Showed me that some referrals can be difficult"

"Good collection of cases, relevant to general practice, was fun to do"

"Good information on guidelines"

"Very useful"

"Very helpful and refreshes the memory"

"Options rather limited in answers, local practices not an option therefore artificial situations. Useful guide overall"

"Very clear and useful, with useful benchmarks for referral"

"Useful"

"Very useful and thought provoking, there are still areas of doubt"

"Very helpful, I am less alarmed by some symptoms than I was before"

"In fact very helpful as it has not only updated my knowledge about the subject but it also simplifies the referral process for suspected lower GI cancer"

"Helpful module"

"Clear guidelines for referral"

"Excellent module"

"Very informative"

"Helpful to clarify the need to refer rather than wait in >s"

"Very informative and practical tips to make timely referral to specialists"

"Concise module, very good"

"I've learned about latest guidelines and will modify my practice"

"Good update and refresher"

"Informative concise module, value addition with clinical scenarios."

### **Suspected lung cancer: when you should refer - in association with NICE**

We received 385 individual pieces of feedback on this module:

"An interesting refresher, a couple of points learned, especially about prioritisation."

"Good update; higher rate of urgent referrals than I previously realised"

"Useful module, good summary of current advice"

"Well done and informative"

"I had already read the NICE guidelines but found this a useful way of reinforcing my knowledge and understanding"

"Not a bad module"

"well worthwhile"

"Good refresher"

"Most interesting was how to select emergencies"

"Excellent"

"Valuable learning material. Enjoyed the format"

"A good deal more urgency than I realised is needed"

"I am a little taken aback at the time take to receive the results of urgent chest x-rays. I am relieved that my 'pretest' results were not too bad."

"Good update."

"Very useful guide"

"Good review , made me reflect on current practice . Good revision of presentations needing urgent referral"

"Good refresher, simplified cases but good summaries of important criteria."

"excellent module. All modules should be based n this format."

"very useful. thanks."

"reminder not to delay in referring where there are worrying sympoms"

"A useful revision of criteria for prioritising referrals"

"Quite an intresting & a bit challenging excercise"

"Excellent, is a phenomenal form to learn."

"Good update"

"WELL DONE VERY GOOD TOPIC"

"Very good"

"Excellent resource. Concentrates the mind on the important issues involved in suspected lung cancer"

"I like this format."

"Good update and review suitable for radiologists, pathologists, physicians and surgeons with an interest in the area and of course GPs"

"Some helpful points, has slightly changed my criteria for urgent CXR"

"It's a good module in the diagnosis of lung cancer."

"GOOD INTERACTIVE REVIEW OF THE REFERRAL GUIDELINES."

"I was pleased that the only retest results I got wrong were between urgent out patient appointments and immediate hospitalisation, so nothing missed!!"

"Forgot about ecg changes in pneumothorax, good reminder for superior vena cava obstruction, don't see many of those."

"Challenging and very rewarding"

"Illustrative cases have added to the understanding of daily scenarios. Useful refresher."

"Excellent"

"Very relevant, and I don't see many patients in these categories so useful to check knowledge"

"Useful update of NICE guidelines"

"Okay, but my answers were influenced by the good service we get from radiology and resp physicians locally which does alter the urgency with which I refer. A few points learned."

"Very useful - case studies were good"

"Really challenging."

"Very interesting and full of useful directions"

"Very relevant to everyday general practice"

"Useful"

"Good refresher of the NICE guidelines"

"Useful and informative, highlights need for high index of suspicion even with a normal CXR."

"Good"

"Very useful"

"Crisp information as to when to suspect lung cancer."

"Very good."

"Excellent teaching although I did score 70% and refreshed with the management of ca lung."

"Thought provoking."

"Excellent way to go through a NICE guideline, thank you."

"Useful review"

"Good clear scenarios and feedback"

"Excellent review"

"Useful and enjoyable"

"Interesting, reminds one not to be reassured by a negative chest x-ray when one's index of suspicion is high"

"i got really good and quick information about ca lung ref"

"My first review: thought provoking and interesting."

"Helpful, would like more examples of when I can just reassure or when do I request a "routine" CXR"

"Learnt some new things"

"This module has made me realise that my threshold for referral was definitely too high. I'll be much more sensitive to the possibility of lung Ca in future. Quite sobering."

"A useful interactive module."

"Best module yet"

"REALLY SURPRISED TO LEARN THAT EVEN FOR A SUSPECTED CANCER CASE AN URGENT XRAY MAY BE DELAYED FOR 5 DAYS. MODULE REALLY INFORMATIVE."

"Very clear definitions and guidelines for the practice"

"Realistic scenarios, a useful reminder of Nice guidelines and importance of clinical signs."

"Very good"

"An excellent module that also clarifies the indications for immediate admission and urgent referral."

"Good module which is common sense"

"A useful way of improving clinical knowledge and learn how to improve patient care."

"Clear and precise"

"Very good and informative"

"Useful"

"Good learning tool - with some good references and audit ideas"

"Good quick module to refresh you in this area."

"Excellent module, thank you."

"Very useful module, realistic case histories"

"Time well spent. Your experience helps but you also learn your deficiency without getting bored."

"Helpful module."

"Useful"

"Good learning module"

"Clarifies need for urgent referral and distinguishes urgent from routine."

"Excellent module, case histories are excellent."

"Very useful exercise, when to refer and when to reassure."

"Enjoyable way of learning"

"Excellent module with case based learning which is fun!"

"Useful update"

"Very useful"

"Useful reference tool with relevant histories"

"Good module"

"An excellent review and update on this important clinical subject.Highly reflective."

"Excellent review"

"Helped me to clarify urgent and immediate referral to specialist."

"Interesting and educational, the case studies were very real."

"Highly educative and useful module"

"The test was well organised and nicely planned."

"Very good review and offers some clear cut guidelines"

"A very good module"

"An excellent module"

"An excellent module, I have learnt a lot"

"Good learning exercise."

"Useful"

"What, where, when. Excellent module."

"Excellent module with clear guidelines on when to refer."

"Very useful update"

"Well thought out"

"Good module"

"Good challenging case histories"

"A good way of working through the NICE guidelines without switching off; makes you think around good clinical examples. Thanks."

"Confused regarding routine and urgent CXR - can always get same day service here"

"Useful brief overview of guidelines for referral."

"Excellent module"

"Very helpful"

"Good module"

"Excellent. Practical too"

"Thank you, a very useful module"

"Clear advice on referral and use of chest xray."

"Good module. Glad that I scored well pre test"

"Seeing pre and post test scores together is very useful."

"I learned a lot from this module."

"Very helpful module"

"Clear explanation of symptoms and signs are important. Referral guidelines explained. Good cases to review your knowledge."

"Good, looking forward to more covering all the nice cancer referral guidelines"

"This was a useful and well constructed learning exercise. Although these problems are relatively unusual in general practice it is important we know how to tell the difference from 'coughs and colds'."

"So many urgent referrals would be likely to overload our local over-stretched system. Its difficult balancing best practice with knowledge of local service provision deficiencies. My pretest answers tended to be based on what I would actually do rather than what would be ideally right."

"Very well written and presented, I learnt a lot."

"Highlighted my lack of knowledge, so very useful!"

"Good module, good revision of guidelines"

"Really made me think and I like this case history form of learning. Only wish real life was quite as clear cut!"

"Helpful and clear"

"Great learning outcome"

"It is so easy to learn"

"The first time I've tried the BMJ Learning tool.....Excellent to focus the mind.... will try the others!"

"Good module. Clarified some areas for me."

"Useful clinical guidance"

"I need to brush up"

"A useful tool - learnt and reinforced"

"Useful. Thank you."

"Thought provoking and enjoyable"

"Good revision"

"Super"

"Useful clarification / guidance."

"Clarified some areas ... food for thought... thank you"

"Excellent, informative and very relevant to primary care."

"Helpful module; made me think, and useful reminders of other causes of symptoms."

"Useful lesson on lung cancer which helps to remind and update."

"An excellent review with good examples of how patients present with common symptoms. Answering the questions confirmed that I tend to assess and refer appropriately, but I must never become too confident and complacent in this area!"

"Very useful for GP"

"Good, questions seemed more straightforward than some modules."

"An excellent module"

"Enjoyable and informative"

"Thought provoking review."

"Good module, helped to focus on symptoms and signs."

"Useful, the audit suggestion less so. I hardly ever see these patients - certainly not often enough to do a meaningful audit! We would definitely discuss at significant events meeting if diagnosis or referral had been delayed."

"Useful, clarifies the issues"

"Excellent module, very useful overview"

"Good module and I like the focus on signs and symptoms."

"Excellent, very effective."

"Good module, would have been better with a few non urgent/emergency examples in the questions!!"

"Good learning aid to update knowledge."

"Entertaining - my confidence improved after doing this one"

"Far more educational than the NICE guidelines themselves!"

"Good, really good"

"Good case histories, comprehensive and concise, I found this a very useful module."

"Good"

"Good review, well presented and informative."

"Excellent"

"Good, useful review."

"Informative and relevant, useful module"

"Very good educational module"

"I will be more confident in taking the appropriate action."

"Excellent. Clear, to the point and very informative. Thank you."

"I enjoyed the module, cancer of Lung is common in my patch, it was nice to be reminded about TB"

"Interesting/informative, well presented"

"Interesting, thought provoking, informative and well presented, first of these modules I have attempted, will try others"

"Interesting and easy"

"Thanks, some scenarios requiring answers of less need for clinical urgency may have been useful."

"Quite useful."

"Useful reminder of the investigation and referral need for various lung diseases."

"Useful module with good learning "lists" at the end of each question. Helpful references."

"Excellent module but a few non-urgent cases would have helped"

"Comprehensive and concise, I found it a very useful module."

"Easy to understand and main points were demonstrated nicely with the case examples."

"Good range of questions."

"Very good, thanks"

"Very very useful"

"Relevant, good questions"

"Good range of questions, main points well illustrated. I've not seen a case of pulmonary aspergillosis in 26 years as GP!"

"Excellent module with challenging questions unlike some learning modules"

"Useful reminder about communicating with patients"

"Informative user friendly module"

"Useful refresher and well presented"

"Complete"

"Good summary."

"Interesting and helpful."

"A very useful module"

"Very useful and informative"

"Good learning experience"

"Very Clear module"

"Good to catch-up on NICE guidelines"

"Good module but response varies with local facilities."

"Useful update"

"Thought-provoking, interesting cases. Concise account of key points."

"Excellent examples"

"This is an excellent module. As a nurse working in an intermediate care nurse led unit it is helpful to have clear referral guidelines for common symptoms"

"A useful summary and revision"

"Useful and interesting."

"Interesting cases. I like the pre-test post-test pattern."

"Useful update"

"Will be more structured in my approach to CXR ordering in future"

"Very useful module, thanks"

"Useful and thought provoking module."

"Well informative Cme."

"Useful module."

"Useful and clear module"

"Good"

"I have learned some facts from the module, good way to gain knowledge."

"Excellent, good to have a quick refresher course in this sometimes difficult field."

"Good but practice will vary with local links between chest physician/GP and radiology"

"Excellent module, gave me food for thought, I definitely learnt something."

"Excellent refresher. Very valuable."

"Very good and enjoyable module"

"Excellent"

"Excellent module, has added to my knowledge."

"Great module, learnt a lot"

"Very useful module, well presented"

"Good - I will alter my referral behaviour"

"Excellent coverage"

"Perhaps too easy but still learned some important facts"

"Very useful, succinct guidelines."

"Good refresher"

"Excellent"

"Very thorough and stimulating course. Found level of personal knowledge reassuring, but appreciated some fine tuning."

"Useful - I will refer even earlier now!!"

"Good range of clinical problems covered"

"Excellent"

"Good module"

"Useful course."

"I liked the format"

"Useful but clear cut history - which is not often the case in practice"

"Clear and concise"

"Good review"

"Very useful, will refer earlier and with more confidence."

"Pleased that I had good level of knowledge before, but module clarified several points"

"Good revision."

"Helpful"

"Excellent module and presented very well."

"Excellent key points for changing practice, but choices given in the questions were limited."

"Good and clear (but things are usually less clear in practice!) Took longer than 1/2 an hour - maybe I'm just really slow!"

"It was very good to learn the most recent practice."

"Excellent module."

"Excellent, a good method to learn the new guidelines."

"Has given me more guidance on suspected lung cancer"

"Clear, concise and useful."

"Interactive cases make it so useful in updating on guidelines."

"Good to clarify points of management of patients with chest problems."

"Excellent review of management of chest symptoms."

"Excellent, very well presented module."

"Very useful"

"Useful refresher"

"Good module, clarified for me specific referral guidelines for specific symptoms."

"Important and comprehensive module."

"Interesting and useful."

"Good guidance on referral issue with chest problems"

"Wonderful module, very useful especially for GP's, thanks."

"I like the style, very practical"

"Useful module and interesting information on referral guidelines and other respiratory conditions requiring urgent action."

"Very useful."

"Many specific useful points about management of chest problems"

"Learnt a lot, very useful, reminded me of many cases that I have seen."

"It has been a pleasure to complete this module, very useful."

"Clear, short, and very useful."

"Good refresher"

"Very helpful, good overview"

"Congratulations, brief, thorough and excellent update."

"Excellent module - good cases with realistic clinical problems."

"Made me think!"

"Extremely useful"

"Excellent summary and a useful way to learn the new guidelines."

"In people with weight loss, haemoptysis, hoarse voice, stridor, SVC syndrome, and chest pain etc. I have found this very useful, well done. I did not know that I ought to be chasing urgent CXR reports within 5 days but I do now."

"Excellent overview"

"Good clear review"

"Excellent way of learning. Useful tool to refresh memory."

"Very useful, very specific guidelines"

"It would be great to get these patients seen as soon as your module suggests! Excellent learning tool."

"Very useful."

"Good job."

"Excellent module."

"Very useful and appropriate for primary care"

"A clear review of the varied presentations of lung cancer, and differential diagnoses."

"I have just started as a GP registrar at the beginning of my VTS. I think this module was very useful. Not only did I learn but could also prove to myself that I have. It will make me more confident in dealing with patients who present with haemoptysis and prolonged symptoms such as shortness of breath on the background of smoking."

"Excellent overview"

"Thought provoking and very well pitched update."

"Informative and well presented."

"Clear guidelines .Should one refer immediately or urgently is very well illustrated ."

"Would recommend."

"Good review of the subject"

"This has been very helpful"

"It must work as I have not touched this module since december and I have remembered most of my mistakes and corrected them."

"Provided a good overview"

"Good overview."

"Excellent refresher"

"Good learning aid."

"Good overview."

"NICE guidelines have a different emphasis from previous management by many GPs. Do more CXRs."

"Overall very useful"

"Very useful module, referral time differs."

"Useful module."

"Good module including wider diagnoses."

"Well pitched and enjoyable"

"Very informative"

"Excellent module, would recommend it."

"Very helpful overview"

"A useful resource for medical students who are looking to tie together their hospital and community experiences of respiratory medicine."

"Very good"

"Very informative and up to date"

"Informative and very useful"

"Excellent review, useful to think about other diagnoses as well."

"I enjoyed working on this module and I have learned new things as well.  
Thank you."

"Good clinical histories using everyday presentations."

"Excellent module"

"I've learnt probably to refer earlier in people over 40. In particular not always CXR them."

"Reassured me in my usual practice!"

"Helpful and thorough."

"Good"

"Useful reminder re urgent CXR and urgent referrals"

"Excellent"

"Good module and update."

"Relevant look at referral criteria."

"Has helped me to learn how to manage the more uncertain cases."

"An excellent learning tool. I felt there were more than one correct answer - eg urgent or immediate referral (for X ray or to hospital)."

"Excellent, cleared some issues regarding managing urgent cases."

"Useful to reiterate guidelines"

"Clarified guidelines - helpful examples."

"Very good"

"Good module with helpful examples"

"Very helpful - a lot more urgent referrals needed than I had previously thought."

"Very good, but I agree that most of us would often order a chest x-ray as well as an urgent OPA in some of the scenarios."

"Very interesting, well presented"

"Useful - I don't want to overload the urgent respiratory clinic, so it's good to revise the NICE recommendations."

"I shall refer a lot more people directly to the chest clinic"

"Very helpful to look at varying clinical presentations. Excellent"

"Very useful."

"Informative and useful."

"Very interesting especially regarding urgent x-rays and urgent referrals."

"Really helpful, realise I need a higher index of suspicion"

"Excellent - really made me think!"

"Very useful - clearly need to raise index of suspicion for early diagnosis"

"Worthwhile"

"Another useful module"

"Very interactive and useful module."

"Useful clinical scenarios"

"Good basic grounding in topic"

"Excellent module"

"Helpful especially to see pre and post test results .Encouraging to see evidence I can still learn !"

"Very good, made be more aware, probably more aggressive in my referral rate than before doing the module"

"Good module for use in general practice."

"Thanks"

"Helpful - refereshes guidelines"

"Useful summary of NICE guidance"

"Useful module: good to be reminded that negative results shouldn't sway clinical judgement"

"Excellent module - useful cases"

"Good"

"I found the information very useful"

"I think I need to review my referrals, make more."

"Enjoyable and informative"

"Very informative"

"Very informative - even for those with little knowledge"

"Very educational and helpful to have some guidelines."

"Very good module"

"Very useful. Will definitely raise my index of suspicion and prompt me to refer earlier and more urgently"

"Extremely useful module and well thought out"

"The use of clinical scenarios helps to ground the learning in real life"

"Good to be reminded about referral in >40s."

"Very good"

"Very useful and clear scenario"

"A very comprehensive module, what was more interesting was the fact that the patient's need for social services was also emphasized which is sometimes over looked."

"Good concise module"

"Good informative module covering salient aspects of knowledge of lung cancer for GPs for referrals. The interactive mode scores over other modes and helps in retention and application of the content acquired. However a few questions could be more specific"

"Helpful module"

"Likely to decrease my threshold for referral for two week wait clinic, and raise suspicion"

"Useful reminder"

