PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (see an example) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below. Some articles will have been accepted based in part or entirely on reviews undertaken for other BMJ Group journals. These will be reproduced where possible.

ARTICLE DETAILS

| TITLE (PROVISIONAL) | NICE guidance: a comparative study of the introduction of the single technology appraisal process, and comparison with guidance from Scottish Medicines Consortium |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AUTHORS | John Ford, Norman Waugh, Pawana Sharma, Mark Sculpher and Andrew Walker |

This paper was submitted to the BMJ but declined for publication following peer review. The authors addressed the reviewer's comments and submitted the revised paper to BMJ Open. The paper was subsequently reviewed by a BMJ Open reviewer with access to the BMJ reviews.

VERSION 1 - REVIEW

Claudia Wild

REVIEWER

| | Ludwig Boltzman Institut |
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| GENERAL COMMENTS | The manuscript "Nice guidance on new drugs" is: |
| | analysing the effects of the introduction of the STA-process on timeliness analysing the effects of the introduction of the STA-process on different types of drugs (cancer) comparing the outcomes of the NICE appraisals with those of SMC. |
| | The conclusion is, that: |
| | STA accelerated the process (a bit), STA accelerated the process, only for other than cancer drugs SMC is appraising more and faster There are differences in the outcomes of the appraisals between NICE and SMC, but – taking a closer look - they are marginal. |
| | In general: The manuscript "Nice guidance on new drugs" is highly relevant and could be of interest for the readers of the BMJ. But – at present – a thread or a coherent course of arguments/elements in the analysis/discussion part is lacking. This can easily be overcome by rearranging the elements and – possibly - the introduction of more subheadings. |
| | In detail: The first 1,5 pages describe in words and show in 2 flow charts the processes in NICE and SMC. BUT: it is written (p 1): "there is no independent systematic review or modelling"in the disscusion, it is said, that NICE decisions are |

| based on QALYs. So who calculates the QALYs ?? I assume NICE not industry ?? |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • It is mentioned twice, that the fact, that NICE as well as SMC base their decisions on industry submissions (more than the EPARs ??), is critiqued (p 1 by assessment groups: NICE, p 2 by staff: SMC). I can imagine, why there is critricism, but to make this transparent, I propose to write a sentence on the arguments of the criticism. |
| Page 4 of 33 For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml |
| For peer review only |
| • p 2 Methods: the inclusion dates for medications should have not only the "until Aug 2010", but also the starting date (2005 ?), the period |
| • p 2 Methods: the terms/words "approval" and "non-approval" are used. In my language use "approval equals EMA-market authorisation" and can not be used for national decisions or "recommendation" or "acceptance". Please consider the wording here. |
| • p 3 timelines of NICE: 18.3 (non-cancer drugs) or 24.2 (cancer drugs). This is really very long. There should be a few more words on where the time is spent in the NICE process compared to the SMC-process (there is 1 sentence on DAD for SMC, but nothing on NICE). |
| • p 4: discussion should be re-structured/ better readable and should include some more informations |
| • Begin: The NICE STA process has been introduced in 2005, with the intention of Our analysis shows that this became true forbut not forWhile the SMC needs XY months for average appraisal, NICE needs |
| • Now analysis of the (lack) of timeliness (paragraphs on p 5) of NICE, because of |
| • Then: Differences in recommendations: 10-20% rejections, mor in cancer. |
| • Now analysis of differences of recommendation. There must be some kind of explanation for additional elements to support decisions (QALY), new reimbursement schemes, "evolution of evidence base" (expand on that) |
| Then: comparison to other studies + analysis: OK |
| Then: NICE and SMC in the context of further (European) appraisals. UK appraisal groups, but also European. Maybe 1 sentence on RE/ relative effectiveness "ambitions" within EUnetHTA. Conclusion: high amount of redundancy ! Commas and periods marks are missing, etc. (blanks) throughout the text. Recommendation: the manuscript should be published with certain |
| Recommendation. the manuscript should be published with cellalli |

| changes, esp in the discussion part. |
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| I would be happy the review/read it again before publication |

| REVIEWER Craig Currie, Cardiff University |
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| GENERAL COMMENTS | Very helpful, informative, and I have no doubt that the study will be |
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| | of widespread interest. My only minor issue is that the structure of |
| | the report is a little unusual; it's neither a formal study structure, nor |
| | that of a more informal editorial/commentary. |

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Recommendation:

Comments:

The manuscript "Nice guidance on new drugs....." is

- analysing the effects of the introduction of the STA-process on timeliness
- analysing the effects of the introduction of the STA-process on different types of drugs (cancer)
- comparing the outcomes of the NICE appraisals with those of SMC.

The conclusion is, that

- STA accelerated the process (a bit),
- STA accelerated the process, only for other than cancer drugs
- SMC is appraising more and faster
- There are differences in the outcomes of the appraisals between NICE and SMC, but taking a

closer look - they are marginal.

Comments:

In general:

The manuscript "Nice guidance on new drugs……" is highly relevant and could be of interest for the readers of the BMJ. But – at present – a thread or a coherent course of arguments/elements in the analysis/discussion part is lacking. This can easily be overcome by rearranging the elements and – possibly - the introduction of more subheadings.

In detail:

• The first 1,5 pages describe in words and show in 2 flow charts the processes in NICE and SMC. BUT: it is written (p 1): "there is no independent systematic review or modelling".....in the disscusion, it is said, that NICE decisions are based on QALYs. So who calculates the QALYs ?? I assume NICE not industry ??

Text has been amended to improve the clarity.

• It is mentioned twice, that the fact, that NICE as well as SMC base their decisions on industry submissions (more than the EPARs ??), is critiqued (p 1 by assessment groups: NICE, p 2 by staff: SMC). I can imagine, why there is critricism, but to make this transparent, I propose to write a sentence on the arguments of the criticism.

Text has been amended to improve the clarity.

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For peer review only

• p 2 Methods: the inclusion dates for medications should have not only the "until Aug 2010", but also the starting date (2005 ?), the period...

Text has been amended to improve the clarity. It should be noted that we have included all medications since both organisations were established and therefore presented the complete 'population'.

• p 2 Methods: the terms/words "approval" and "non-approval" are used. In my language use "approval equals EMA-market authorisation" and can not be used for national decisions or "recommendation" or "acceptance". Please consider the wording here.

This terminology reflects that which is used by NICE and SMC. The authors do not think it is appropriate to combine terminology.

p 3 timelines of NICE: 18.3 (non-cancer drugs) or 24.2 (cancer drugs). This is really very long.
 There should be a few more words on where the time is spent in the NICE process compared to the SMC-process (there is 1 sentence on DAD for SMC, but nothing on NICE).

This has been discussed at length in the discussion

• p 4: discussion should be re-structured/ better readable and should include some more informations

The discussion has been restructured for readability and clarity

• Begin: The NICE STA process has been introduced in 2005, with the intention of..... Our analysis

shows that this became true for.....but not for.....While the SMC needs XY months for average appraisal, NICE needs..

- Now analysis of the (lack) of timeliness (paragraphs on p 5) of NICE, because of.....
- Then: Differences in recommendations: 10-20% rejections, mor in cancer.
- Now analysis of differences of recommendation. There must be some kind of explanation for

additional elements to support decisions (QALY), new reimbursement schemes, "evolution of

evidence base" (expand on that)

- Then: comparison to other studies + analysis: OK
- Then: NICE and SMC in the context of further (European) appraisals. UK appraisal groups, but

also European. Maybe 1 sentence on RE/ relative effectiveness "ambitions" within EUnetHTA.

Conclusion: high amount of redundancy !

• Commas and periods marks are missing, etc. (blanks) throughout the text.

Recommendation: the manuscript should be published with certain changes, esp in the discussion part.

VERSION 2 – REVIEW

| REVIEWER | Claudia Wild Ludwig Boltzman Institut |
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| REVIEW RETURNED | 03/12/2011 |

| GENERAL COMMENTS | The authors have respected my previous comments in a peer |
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| | review. The manuscript ist highely relevant: it should be published. |