Stereotactic Radiosurgery/
Stereotactic Radiotherapy Needs Assessment and Service Review Consultation Report
**Document Purpose**
Consultations

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Stereotactic Radiosurgery/Stereotactic Radiotherapy Needs Assessment and Service Review Consultation Report

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**Target Audience**
Foundation Trust CEs, Medical Directors, NHS Trust Board Chairs, NHS England Regional Directors, NHS England Directors of Commissioning Operations, Directors of Finance, NHS Trust CEs

**Additional Circulation List**
CCG Clinical Leaders, CCG Accountable Officers, Interested Patient Groups/Associations, MPs, Royal Colleges, NHS Clinical Reference Groups, Communications Leads

**Description**
The report concludes the public consultation regarding the Stereotactic Radiosurgery/Stereotactic Radiotherapy Needs Assessment. The consultation closed 26 January 2015 and NHS England received 202 responses. These responses have been carefully reviewed and the report presents the key themes identified.

**Cross Reference**
Stereotactic Radiosurgery/Stereotactic Radiotherapy Needs Assessment and service review - 02469

**Superseded Docs**
N/A

**Action Required**
The consultation report should read in conjunction with the Stereotactic Radiosurgery/Stereotactic Radiotherapy Needs Assessment and service review and the consultation guide

**Timing / Deadlines**
N/A

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**Document Status**
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1. **Background to consultation process**

1. NHS England took responsibility for commissioning stereotactic radiosurgery and stereotactic radiotherapy services (SRS/SRT) in April 2013. A review of these services in the treatment of intracranial conditions was undertaken by NHS England during 2013-14 because the organisation inherited a number of different commissioning arrangements. This meant that patients were experiencing variable access to services depending where in England they lived.

2. On 3rd November 2014, NHS England published the Stereotactic Radiosurgery and Radiotherapy Services - Needs Assessment and Service Review for consultation (specifically focused on the treatment of intracranial conditions with SRS/SRT) which outlined a number of options for change, each of which was focused on obtaining the best possible choice for patients, and on ensuring that innovative radiotherapies such as SRS/SRT remain at the heart of the NHS in England.

3. The consultation ran for 12 weeks until 26th January 2015 and NHS England received 202 consultation responses including Members of Parliament, Professional Organisations and Charities. Formal feedback was also provided by CNS Tumours Clinical Reference Group (CRG) and the Radiotherapy CRG members.

4. At the time of consultation, we committed to publication of a report summarising the themes which had emerged via the consultation responses. This is good practice following consultation and enables NHS England to demonstrate that it has listened to, and heard, the views of stakeholders.

5. A Consultation Guide was published explaining the proposed changes and outlining a series of questions for stakeholders to consider. Alongside this a Needs Assessment and Service Review document was published highlighting the proposed changes. Responses to the consultation could be submitted via an online portal. The consultation was publicised via the NHS England website and through internal and external communication briefs. A direct mail to NHS England stakeholders (including NHS organisations, charities, patient organisations, industry, partner organisations and professional bodies) was also undertaken.

6. A workshop was held to help patient organisations and charities understand the proposals, enabling them to respond formally to the consultation. There feedback is also included as part of the report.

1.1 **Responses received**

7. A total of 202 consultation responses were received through the consultation portal, all of which were anonymous.
8. In addition to the 202 responses received through the consultation portal, a number of detailed responses were also received from a variety of stakeholders, specifically:

- Six NHS organisations
- Clinicians.
- Medical and Professional associations including; The Radiotherapy Board (comprising Society and College of Radiographers, Institute of Physics and Engineering Medicine and the Clinical Oncology arm of the Royal College of Radiologists., the British Radiosurgery Society, Cancer Research UK and the Royal College of Radiologists.
- Brain Tumour Research and Cancer Research UK
- A local MP
- Individual members of the public.
- Two Private Healthcare providers
- Medical Suppliers and Manufacturers

9. As part of the consultation process, Clinical Reference Groups were also able to respond to our proposal.

10. All of these detailed responses, though not received through the consultation portal, have been taken into account in the production of the consultation report and the key themes raised by these responders are included within section 2.1. However, these responses were not necessarily in the same format as the consultation portal responses, therefore the detailed responses have been summarised separately to the feedback by question section.
2. Consultation findings and action taken

11. NHS England received responses through a number of different routes: (i) direct correspondence; (ii) a patient and public engagement event; and (ii) the consultation portal, which generated the largest volume of responses.

2.1 Summary of direct correspondence

12. NHS England received a detailed response from Brain Tumour Research, which is a large charity dedicated to raising funds for brain tumour research. This organisation welcomed and supported the NHS England preferred option to offer 7 day access to the SRS/SRT service however wished to see the level of access expand quickly.

13. The key messages from provider organisations that submitted detailed responses out with the consultation portal were that:

- None of the options presented within the document was considered optimal.
- The demand and capacity analysis within the report needed to reflect current pattern of demand, particularly for cerebral metastases, and take account of the different clinical indications accessing SRS/SRT.
- The focus on 7 day working needed to be balanced with its potential impact, for example that having fewer centres would likely increase the travel time for patients to access treatment.
- The preferred option should aspire to commissioning a level of activity that is equivalent to European levels.
- Existing providers should continue to deliver the service as they have invested significantly in equipment and staffing. A local MP supported this view.
- The disparate nature of the clinical conditions eligible for SRS/SRT gives rise to levels of clinical complexity and these levels should be matched to equipment capability where evidence exists.
- There was an inconsistent view as to whether one type of machine is able to achieve better outcomes when treating SRS/SRT patients than another.
- The review would benefit from a more robust economic review which should be supported by a rigorous technology appraisal.

14. Many of these views were also expressed by the Professional Organisations that submitted detailed responses. In addition, responses highlighted the importance of a robust co-ordinated approach to radiotherapy service planning and the practicalities of changing from a 5 day model to a 7 day model, in terms of workforce arrangements, recruitment, machine servicing and managing breakdowns, were highlighted.
15. NHS England did not receive any detailed responses from patient groups, though it is possible that some groups submitted anonymous responses through the consultation portal.

2.2 Summary of the patient and public voice engagement event

16. A patient engagement event was hosted by NHS England during the consultation process. The main questions and issues emerging from the event included:

- The need for better alignment of service planning for SRS/SRT with Stereotactic Ablative Radiotherapy (SABR) and conventional radiotherapy.
- Providers having SRS/SRT equipment was not enough and this raised questions about education programmes for any new providers of the service.
- SABR should be considered as part of the capacity calculation.
- The point in the pathway at which patient choice is offered should be carefully considered.
- Some raised clarification questions about how, practically, 7 day working would be implemented and included the option of a phased approach, the timescales, the additional infrastructure costs, and the recruitment of additional staff.
- We should aspire to the good practice of other countries.
- They questioned whether travel times and distance from a SRS/SRT centre had been considered in the service review.
- Patients need assurance that provider efficiency will not lead to patients being pressured into having this form of treatment.
- A number of questions were raised relating to the type of equipment, age of the equipment and research.

2.3 Summary of the responses received through the consultation portal

17. NHS England received 202 anonymous responses through the consultation portal. The responses reflected a broad range of opinion and, overall, respondents did not favour NHS England’s preferred option.

18. The five day option was more widely supported than the seven day option.

19. Respondents were fairly evenly split in their views of commissioning 5,239 or 8,847 treatments per year. Most respondents favoured a growth forecast of 27% per year and nearly all supported the use of a mixture of machine types.

20. There was widespread agreement that focusing treatment on a smaller
number of centres would create problems in accessing the service for many patients. This was raised as a particular issue for patients with cerebral metastases. Many respondents argued that delivering the anticipated increases of SRS/SRT in England could only be achieved if there were more centres able to deliver the service than Option 2 proposed and spread as evenly as possible across England.

21. Many respondents felt that there were clear clinical and patient experience advantages to co-locating the treatment of cerebral metastases, using SRS, with neurosurgical centres.

22. Many respondents felt that the planning of SRS/SRT should be undertaken in conjunction with the planning of SABR and other radiotherapy treatments.

2.4 Action taken following consultation

23. Although the responses reflected a broad range of opinion, many questions were raised about the assumptions within the preferred option. In response to the issues raised, and the need to ensure that the most appropriate SRS/SRT service is procured, NHS England has established a Project Steering Group and a newly formed SRS/SRT Expert Reference Group to lead the next stage of the process.

24. The Expert Reference Group is comprised of a small number of dedicated clinicians including representatives from the CNS Tumours CRG and Radiotherapy CRG. The first task of the group has been to reassess the assumptions on which the preferred option was based.

25. The work of the Expert Reference Group and NHS England has led to a number of specific actions having been taken to address concerns expressed during the public consultation. A summary of these actions is contained within Table 1.
Table 1: Summary of actions taken

<table>
<thead>
<tr>
<th>You Said</th>
<th>We did</th>
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<tbody>
<tr>
<td>There was a lack of granularity in the clinical model presented to take account of differences in the clinical cohorts that require SRS/SRT treatment. Because of this the capacity modelling did not seem to reflect current activity patterns.</td>
<td>The clinical model has been revisited to reflect the very different clinical indications that will require treatment using SRS/SRT. This has led to the development of a four-tier clinical model, based on both complexity and rarity.</td>
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<td></td>
<td>The activity assumptions underlying the clinical model, particularly relating to the treatment of cerebral metastases, have also been refreshed to take account of current activity patterns.</td>
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<td>This has led to a slightly increased activity projection.</td>
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<td>The preferred model, by centralising activity in a small number of providers, unfairly restricted geographical access arrangements for some patients.</td>
<td>The revised clinical model provides an opportunity for a larger number of centres to deliver the SRS/SRT service to patients with cancer – this is because the revised clinical model recognises the clinical advantages of co-locating SRS/SRT treatment with other services, such as neurosurgical multi-disciplinary teams in the treatment of cerebral metastases.</td>
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<tr>
<td></td>
<td>Seven-day working is a cornerstone of NHS England’s strategic ambition, enabling patients increased opportunities to access care.</td>
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<td></td>
<td>NHS England remains committed to ensuring that seven-day working is achieved, but does recognise the practical requirements of delivering safe and highly effective SRS/SRT services. Because of these important considerations, delivering seven-day working will be phased over time – allowing providers to prepare for this change.</td>
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<tr>
<td>The seven-day model did not sufficiently take account of service necessities, such as physics quality assurance (QA) and servicing, and/or timescales to alter the current workforce provision to enable seven-day working.</td>
<td>The SRS/SRT Expert Reference Group reviewed the issues relating to types of treatment platform and concluded that there is insufficient evidence to demonstrate clinical advantage of one type of platform over another.</td>
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<tr>
<td></td>
<td>However, it is acknowledged that there may be advantages to using specific treatment platforms to treat benign conditions in children and young people – where ‘whole body dose’ should be kept to a minimum.</td>
</tr>
<tr>
<td>That there needed to be further thought about the types of treatment platform used to deliver SRS/SRT, though most respondents favoured a mixed-provision.</td>
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2.5 Revisions to the clinical model

26. The Expert Reference Group, having reviewed the consultation responses and revisited the preferred option, has evolved the clinical model to be based on a four-tier approach. The four-tier model being based on both complexity and rarity, and as a minimum, requiring SRS/SRT services to be co-located with neurosurgical centres. The complexity levels ranging from:

- Tier 1 activity (e.g., cerebral metastases) deemed to be clinically complex but not rare. This includes non-skull base meningiomas and requires neuroscience (neuro-oncology) Multi-disciplinary teams (MDT).

- Tier 2 activity (e.g., skull-base tumours, such as Vestibular Schwannoma, meningioma, etc) requiring co-location with a full skull-base team and MDT in a neurosurgical centre.

- Tier 3 activity (e.g., vascular indications, such as Cerebral Arteriovenous Malformations) requiring co-location with a full vascular team and MDT and full imaging support services.

- Tier 4 activity (e.g., trigeminal neuralgia and other functional conditions and other rare tumours) deemed to be more complex which is best carried out in fewer centres, enabling appropriate staffing skill-mix, MDT support, co-located services and appropriate equipment.

- Supra-regional centres should treat the full range of conditions including Tier 1 and 2 for their local neurosurgical population

27. Consultation responses also suggested that the available treatment platforms provided different clinical advantages to the very complex and rare clinical indications. The Expert Reference Group have revisited the published evidence and have concluded that, while there is more published data for gamma knife than any other SRS/SRT modality, that the clinical advantage to using one type of equipment over another is not conclusive. This conclusion echoes the views of many respondents who indicated a preference for a plurality of treatment platforms.

28. However, in reaffirming the need for a plurality of treatment platforms, the Expert Reference Group have also concluded that there is some evidence that benign conditions treated in children and young people, where the consequent “whole body dose” should be kept to a minimum, should preferentially be treated on a gamma knife platform.

29. Many respondents highlighted the activity assumptions contained within the preferred model. The Expert Reference Group has revisited the modelling in detail and has concluded that there will be a higher projected demand for the treatment of cerebral metastases.
30. Specifically, the Expert Reference Group have reassessed the number of patients accessing SRS per 100,000 population, in line with clinical criteria contained within the NHS England clinical commissioning policy for treating cerebral metastases. The cerebral metastases data was sourced from a number of specialist SRS centres in England and the results showed a higher volume of activity than that predicted in scenario A.

31. The overall impact of this finding is an increase in the overall demand for SRS within scenario A, and consequently an increase in the capacity required in England to deliver it. This will form part of the clinical model which will be procured within 2015/16.

32. Many respondents also indicated concerns about seven day working and the need to ensure sufficient time to maintain equipment and service standards. The revised clinical model and approach to delivering seven-day working means offers a balanced and manageable approach to achieving the ambition set for the expansion and development of SRS/SRT services in England.

33. NHS England aims to deliver seven-day working in a phased way, enabling providers to plan for service expansion and to take account of equipment servicing, quality assurance, and service interruptions.
3. Feedback by question

34. Question 1: NHS England’s preferred approach is to commission SRS/SRT services that are available for patients seven days a week, in line with plans for other NHS services, rather than just Monday to Friday. Do you agree with this approach?

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35. 34% of respondents were in favour of 7 day working whilst 54% of responders disagreed with this approach.

36. It was acknowledged in some responses that the 7 day option offers patients the opportunity to be treated at weekends, particularly those who struggle to access services during the working week. It was suggested that, in many cases, patients with working age family and friends might also find it easier to attend at the weekend. Some respondents believe that 7 day working is unrealistic and unachievable.

37. A number of service providers agreed in principle that seven day service provision was desirable but not currently possible for several reasons. The shortage of experienced and trained staff and the limited availability of support services at weekends were cited. Another responded that seven day SRS/SRT services could only be provided in conjunction with the full development of all other hospital services on a seven day basis and should not be developed in isolation.

38. Respondents highlighted that the lack of patient transport at weekends would affect the ability of some patients to access services on a Saturday or Sunday. There was concern that the seven day service provision of SRS/SRT would result in fewer centres. It was suggested that patients unable to benefit from weekend services could experience the dis-benefit of travelling further for treatment.

39. Respondents raised questions about the ability of manufacturer’s maintenance engineers to respond to problems at weekends and suggested that measures to enable weekend responses would take time to introduce and would likely be expensive.

40. “This approach is correct and a big improvement for patients”

41. “Whilst we agree that a seven day service should be aspired to its feasibility at present must be questioned”
42. “We are concerned that the practicalities of increasing working from 5 to 7 days have not been fully considered.”

43. “We don’t believe that at this time it would be appropriate to agree to 7 day working but we would welcome the opportunity to work with the local commissioning team to evaluate the need for seven day working, the benefits it provides to patients and associated costs and how barriers to delivery could be overcome.”

44. “Most equipment manufacturers do not provide technical support outside the usual working week (9-5, Monday-Friday). It would be impossible to introduce 7-day working without this support.”

45. Question 2: There is some uncertainty about how quickly the use of SRS/SRT treatments will become more common. If clinical practice changes gradually, a growth rate of 12.5% per year has been forecast. NHS England’s clinical policies are based on widening access to treatment, so, if clinical practice moves more rapidly, to match these policies, a growth rate of 27% per year has been forecast. If, however, in the future, NHS England were to change its policies, a growth rate of 35% per year for seven years has been forecast.

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<th>Don’t know</th>
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<tbody>
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<td>112</td>
<td>63</td>
<td>27</td>
<td>0</td>
</tr>
<tr>
<td>56%</td>
<td>31%</td>
<td>13%</td>
<td>0%</td>
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46. There was majority agreement to a growth forecast of 27% (56% said yes).

47. Many respondents believed that by maximising the number of units, patients with cerebral metastases requiring SRS/SRT treatment would be able to access it more locally. This approach would also enable the attainment of the annual growth forecast of 27%.

48. Other respondents suggested that the concentration of activity to as few as six centres would produce a barrier to treatment for some patients, especially those patients with cerebral metastases.

49. Some respondents argued that NHS England should aspire to the levels of treatment evident in some similar countries. A higher forecast of growth would move England toward parity with these countries.

50. “A growth of 27% appears conservative, although possibly realistic if efforts to change current clinical practice is not enhanced”

51. “All plans should be based on maximising access as soon as is achievable. This includes plans for level of demand. NHS England should change its policies to ensure a growth rate of 35% per annum”
52. “Whilst there is forecast for growth in all indications it is most likely to occur in fast growing malignant tumours (e.g. cerebral metastases). In these cases more local, rapid provision will treat unmet need because local provision resolves the issue of patients being deterred by travelling to distant centres for SRS.”

53. **Question 3: If you do not agree with Option 2, the preferred option, do you agree with any of the remaining options for change?**

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<tr>
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<td>57</td>
<td>71</td>
<td>0</td>
</tr>
<tr>
<td>37%</td>
<td>28%</td>
<td>35%</td>
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54. The responses to this question were evenly split suggesting that this question was unclear and caused confusion. The comparatively high numbers of “Don’t knows” indicates that many respondents were unclear what was being asked.

55. An analysis of the narrative section relating to the question suggests that some respondents thought Option 2 was associated with Question 2 – the question relating to growth forecast.

56. Many of the respondents used the narrative section to give their opinion on which of the options they favoured. With only a few exceptions, Options 1 and 3 were most popular.

57. Some respondents favoured two of the possible options, usually two with the same number of working days or two with the same amount of annual activity.

58. Other respondents produced their own option e.g. all centres treating cerebral metastases but a sub set treating benign tumours and vascular conditions and a further subset treating the most complex/rare cases.

59. “Option 4 is preferable to any other option. As stated in the consultation document, by operating 7 days a week far more patients can be treated. As above, it is important to set – and achieve - ambitious targets for number of patients treated.”

60. “From recent meetings with oncology professionals in Europe and North America it is clear that they do not perceive SRS as a unique specialised radiotherapy treatment. It is part and parcel of the work of all established tertiary radiation centres. In the UK there is a danger to perceive SRS as exceptional, whereas we should be making it more accessible to patients locally”.

61. “A centralised model does not meet the needs of urgent cancer patients requiring SRS/SRT due to the excessive distances patients have to travel. The greatest expansion in workload is likely to patients requiring treatment for brain metastases and therefore there needs to be a SRS/SRT facility at each neurosurgical centre.”
62. “Based on the information provided in the review it is difficult to fully support any option although we would tend towards an option somewhere between 3 & 4. This would deliver the capacity required for the higher levels of activity whilst allowing for regional centres to be developed which addresses current geographical inequalities.”

63. “The commissioning aims can be best reconciled by having a tiered commissioning model whereby: each major neurosurgical centre (up to 24), in collaboration with sub-specialised neuro-oncologists based within the existing MDTs, is commissioned to deliver SRS for brain metastases patients. The subgroup of those units (perhaps 10-12) which host a fully established base of skull MDTs and practices be additionally commissioned for skull base indications e.g. vestibular schwannoma. SRS super-specialisation for rarer, more complex but less urgent indications be retained by a smaller number of third-tier units.”

64. Question 4: The use of machines that are dedicated to delivering SRS/SRT (such as Gamma Knife® and CyberKnife®) does mean ensuring that a large enough population catchment to ensure it is economic to provide the machines. On the other hand, use of a LINAC means that SRS/SRT can be combined with other radiotherapy treatments and offered on a part-time basis. The review did not find evidence to suggest that one type of machine achieves better outcomes than another.

Do you agree that a mixture of Gamma Knife®, linear accelerators and CyberKnife® machines should be used to provide SRS/SRT services commissioned by NHS England?

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<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
<th>Not Answered</th>
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<tbody>
<tr>
<td>Count</td>
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<td>11</td>
<td>0</td>
</tr>
<tr>
<td>%</td>
<td>81%</td>
<td>13%</td>
<td>6%</td>
<td>0%</td>
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65. There was a substantial majority agreeing that a model utilising a mixture of machines should be adopted to provide SRS/SRT services commissioned by NHS England (81% said yes)

66. Although most respondents were comfortable with a mixed provision of machine types many expressed a preference for a particular machine type. Those in favour of linear accelerators highlighted the versatility of the machine, especially the ability to undertake other forms of radiotherapy. A common theme was that linear accelerators can maximise efficiency through the delivery of fractionated radiotherapy, SRS/SRT and SABR at different times of the working week. Respondents who preferred Gamma Knife evidence it as the machine of choice for very small, complex or single tumours. It was highlighted that these centres were often recipients of tertiary referrals from linear accelerator SRS centres.
67. “We hope that NHS England will recognize that the Leksell Gamma Knife is the technology that treats 70% of the radiosurgery cases in England today due to the fact that it is a dedicated system designed for achieving excellent clinical outcomes and high throughput of patients. We find it yet to be demonstrated that alternative technologies have the clinical results and capacity of the Gamma Knife despite marketing to that effect.

68. “LINAC based radiotherapy is by far the most economic means for the NHS to deliver SRS. This is why this method is increasingly the popular choice in the UK and worldwide. A LINAC provides more versatility and optimisation of resources. A LINAC will never be idle, when SRS is not taking place, as opposed to GammaKnife. NHS England should perceive the bigger picture and utilise LINAC SRS as its primary supported modality”.

69. “If there is uncertainty over the projected demand for SRS/SRT, it might be sensible to consider the use of Linac based treatments so the machines could be used for conventional radiotherapy treatments if the demand is not found.”

70. “The majority of intracranial SRS/SRT treatment is delivered globally by Gamma Knife and we would contend that it should also be the case in England (as indeed per current practice). Exception would include where it can clearly be demonstrated that local need does not support a Gamma Knife centre, but patient volume (for some intracranial and added to by extracranial) for CyberKnife or linac can be shown. Even in this scenario treatment of some conditions and more complex cases would need to be referred to a dedicated SRS centre.”

71. Question 5: Are there any other considerations which need to be taken into account, which have not been covered in the options for change? If so, please tell us what those considerations are, and explain the reasons for your answer.

72. About two thirds of respondents made a comment.

73. A wide range of comments were received. The most common themes were; workforce planning, economic appraisal of the options, expansion in a controlled manner, staff training and expertise, requirement for minimum quality standards and outcome based measures and unhappiness with the review of SRS/SRT in isolation from standard radiotherapy and SABR. The comments reflected both sides of the debate in terms of limiting the number of centres able to deliver SRS/SRT balanced with excellent care from centres with sufficient volumes.

74. “The single greatest omission from this report is the lack of workforce planning for those scenarios. It makes sense to plan for larger increases in demand to achieve cancer outcomes on a par with the rest of Europe. Furthermore, although SBRT commissioning is outside the scope of this review, the opportunities for shared resources and facilities should be fully taken into consideration.”
75. “SRS/SRT is a form of radiotherapy, and while it may have its own set of challenges it does not make sense to plan and commission SRS/SRT services in isolation from radiotherapy service as a whole.

76. “Robust economic appraisal. Understanding and addressing the need for change in clinical practice.”

77. **Question 6**: Are there any inequality/health equalities issues which you think should be considered in making a decision about the future commissioning of SRS/SRT services in England? If so, please tell us what these issues are and explain the reasons for your answer.

78. The vast majority of response were concerned with the effect of poor geographical access on patients particularly those patients that found travelling long distances problematic; the young, the older age group and patients with cerebral metastases.

79. It was noted that many metastatic patients had lung cancer; a disease disproportionately affecting poorer members of society. It was argued that economically disadvantaged groups would be less likely to receive treatment if the number of centres was few.

80. “There seems to be a gross inequality of access to these services across the UK - with London being very heavily over-resourced and the regions significantly under-resourced.”

81. “The current geographical distribution reflects the enthusiasm of local specialist commissioners in commissioning SRS services prior to the move to National Specialist Commissioning; there was enthusiasm in the North, reluctance in the South. It is unjust and not cost effective to decommission services because some areas had more foresight than others.”

82. “NHS-funded SRS/SRT should be available to people of all ages. Patients of younger and older ages may have additional problems travelling to distant geographical centres.”

83. “Brain metastases from primary lung cancer are prevalent and form a large part of the SRS workload. Lung cancer is more common in lower social groups, with wide variation in incidence (up to double) throughout the UK. This is important both in planning provision and in ensuring no patient group is disadvantaged or disenfranchised by any commissioned service pattern. Improving cancer survival rates are a key government target; equity of access to this treatment is key.”