

Calculating hours available to a FTE speech and language therapist

This tool is based on the work of Joyce Williams and her book 'Calculating Staffing Levels in Physiotherapy Services' 1991 Rothem PAMPAS Publishing. It has been adapted to take into account the terms and conditions of Agenda for Change and examples given are more applicable to speech and language therapists.

The 'available' hours are the number of hours that a speech and language therapist is available for work in a year.

Funding for one whole time equivalent (w.t.e.) speech and language therapist effectively provides the finance to employ one speech and language therapist for 52 weeks of the year but does not equate to having a w.t.e. speech and language therapist available for work for 52 weeks of the year.

Contracted Hours

Pre Agenda for Change speech and language therapy contracted hours amounted to 35 hours per week for 1.0 WTE. Post Agenda for Change contracted hours increase to 37.5 hours per week.

| Pre Agenda for Change/protected hours | Post Agenda for Change (all new posts) |
|--|--|
| 35 hours per week x 52 weeks = 1820 hours per year | 37.5 hours per week x 52 weeks = 1950 hours per year |

Available Hours

Available hours are the number of contracted hours minus the predicted total number of hours absent from work for the year due to annual leave, study leave and sickness. This figure is worked out by looking at both fixed and variable leave.

Fixed Leave

Fixed leave includes all leave that remains constant each year such as annual leave and public holidays. Since Agenda for Change there are three rates that apply to speech and language therapists.

- 1.0 WTE SLT new to the NHS - 27 days plus 8 public/bank holidays (35 days)
- 1.0 WTE SLT with 5 yrs NHS service = 29 days plus 8 public/bank holidays (37 days)
- 1.0 WTE SLT with 10yrs NHS service = 33 days plus 8 public/bank holidays (41 days)

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When calculating available hours and workforce capacity, consideration must be given to the numbers of posts at different bands and their associated years of experience.

Variable Leave

Variable leave includes study/continuing professional development leave, sick leave and maternity leave etc.

Sickness Leave. In services where sickness levels are collected / known actual sickness rates can be used. Previous staffing resource calculation documents such as 'Calculating Physiotherapy Hours Available ' by Joyce Williams and the Dietitians 'Workload Management Tool' recommend using an average figure of 2 working weeks a year, which equates to 70 hrs for those on protected time or 75 hours post Agenda for Change. These figures may be used as a general guide.

Study Leave This leave includes training days and continual professional development leave (CPD). The Royal College of Speech and Language Therapists recommends that a minimum period of 10 sessions or one working week pro rata per WTE be put aside for professional development. **This equates to 35 hours for people on protected time or 37.5 hours post Agenda for Change.** It will be necessary to add on extra time for attendance at / activities such as Special Interest Groups and journal clubs etc if time for these activities is not included in the 10 sessions pro rata for CPD previously mentioned.

Mandatory training. Separate time for mandatory training has not been included in these calculations as the demands differ between individual organisations. Each service is advised to add the time needed to fulfil the mandatory training demands of their organisation in a similar manner to sickness levels.

Table 1

| | Protected Hours | | | Post Agenda For Change/ New Posts | | |
|---------------------------------|-----------------|-------|--------|-----------------------------------|-------|-------|
| | Hours | Weeks | % Time | Hours | Weeks | %Time |
| Contracted Time | 1820 | 52 | 100 | 1950 | 52 | 100 |
| Fixed Leave | 245 | 7 | 13.5 | 262.5 | 7 | 13.5 |
| Incl. 8 Bank | 259 | 7.4 | 14.2 | 277.5 | 7.4 | 14.2 |
| Holidays | 287 | 8.2 | 15.8 | 307.5 | 8.2 | 15.8 |
| Variable Leave (2 weeks) | 70 | 2 | 4 | 75 | 2 | 3.8 |

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| | | | | | | |
|-------------------------------|------|------|------|--------|------|------|
| Study Leave | 30 | 0.86 | 1.7 | 30 | 0.8 | 1.5 |
| Maximum Available Time | 1475 | 42.1 | 80.8 | 1582.5 | 42.2 | 80.8 |
| | 1461 | 41.7 | 80.1 | 1567.5 | 41.8 | 80 |
| | 1433 | 40.9 | 78.5 | 1537.5 | 41 | 78.5 |

The maximum available hours for 1 WTE per year (taking the previously mentioned factors into account for variable leave) are likely to be:

- 1475 hours/42 weeks (Pre Agenda for Change/protected hours)

Or post Agenda for Change:

- 1582.5 hours/42 weeks for someone with less than 5 yrs service,
- 1567.5 hours/41.8 weeks for someone with 5 years service and
- 1537.5 hours/41 weeks for someone with 10 years service.

Using knowledge of your individual service derived from the '**RCSLT WORKFORCE PLANNING TOOLKIT**' [Competency Based Planning](#) it is possible to calculate the hours available for each individual service and post if required.

Patient Related Hours

Patient related hours are calculated from the percentage of time spent in patient related activity and will vary as they are dependent on the band of therapist and nature of the post.

From the Acute Hospitals Portfolio produced by the Audit Commission 2003 – 2004 the range of patient related activity in acute hospitals was reported to be an average of 55% on patient care (this included direct and indirect patient time).

Further research / information is needed across the UK for all speech and language therapy services; in particular for paediatric, mental health and community speech and language therapy services in England and Wales and for all speech and language therapy services in Scotland and Northern Ireland.

As there is some question on the validity of the Acute Hospitals Portfolio data it is advisable to provide information on patient related activity time associated with the different bands of therapists by using data collected over two or three years from your own service's activity audits. This approach is also advisable for paediatric, mental health and community speech and language therapy services in England and Wales and for all speech and language therapy services in Scotland and Northern Ireland.

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An example for calculating available patient hours is shown in the table below using the 55% figure from the Acute Hospitals Portfolio Audit Commission Report.

Table 2

| Averaged number of Hours Available per year over 52 weeks per WTE (5 day working week) after fixed and variable leave accounted for | | | | | | |
|--|------------------------------|---------------------------|------------------------------|---------------------------|---------------------------|------------------------------|
| | Pre Agenda for Change | | | Agenda for Change | | |
| Available hours | Per Year (Table 1) | Per Week (Yr ÷ 52) | Per day (Yr ÷ 52 ÷ 5) | Per Year (Table 1) | Per Week (Yr ÷ 52) | Per day (Yr ÷ 52 ÷ 5) |
| New to NHS service | 1475 | 28.4 | 5.7 | 1582.5 | 30.4 | 6.1 |
| With 5 yrs service | 1461 | 28.1 | 5.6 | 1567.5 | 30.1 | 6 |
| With 10 yrs service | 1433 | 27.6 | 5.5 | 1530 | 29.6 | 5.9 |
| Patient Available Hours Example – using figure of 55% from Acute Hospital Portfolio | | | | | | |
| | Pre Agenda for Change | | | Agenda for Change | | |
| Available hours | Per Year (Table 1) | Per Week (Yr ÷ 52) | Per day (Yr ÷ 52 ÷ 5) | Per Year (Table 1) | Per Week (Yr ÷ 52) | Per day (Yr ÷ 52 ÷ 5) |
| New to NHS service | 811.3 | 15.5 | 3.1 | 870.4 | 16.7 | 3.4 |
| With 5 yrs service | 803.6 | 15.5 | 3.1 | 862 | 16.6 | 3.3 |
| With 10 yrs service | 788.2 | 15.2 | 3 | 845.6 | 16.3 | 3.3 |

The model of service provided will affect the percentage of direct contact time given.

Managers will need to be aware of the model of service provided to each care group as it will affect the percentage of direct contact

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time required which in turn will affect the number of people to whom one WTE speech and language therapist may be expected to offer a service.

Example 1

A hypothetical example is given for a 20-bedded ward where on average 50% of patients require SLT input at any one time and:

- The patient available hours are known to be 55% of SLT on duty / available time
- The direct patient contact time equals 57 % of the patient available hours
- 1.0 WTE SLT with between 5 and 10 yrs of service is dedicated to providing a speech and language therapy service to this ward. The other 45% of their available /on duty hours is used for ward rounds, teaching, supervision and clinical governance work.

Example 1

| | Per Year | Per Week | Per Day |
|---|---------------------------|----------|---------|
| Available hours (Table 2) | 1567.5 | 30.1 | 6 |
| Patient available hours | 862 | 16.6 | 3.3 |
| Direct patient input hours (60% of ptnt available hrs) | 517.2 (517 hrs 12 min) | 10 | 2 |
| Minutes per day per patient (10) | | | 12 min |

This would allow a ward containing 10 patients with speech and language therapy needs 12 minutes of direct patient contact per day.

If this example were for a community clinic where the therapist also had 55% of their time available for patient input then they would have 1 hour and 59 minutes per day for patient input. If the therapist booked in 6 children per day, each child could only receive 20 minutes of direct time per session.

It may be possible to increase the patient available hours or direct patient contact time e.g. with the use of assistants/ clerical staff supporting some of the administrative tasks or indirect patient contact work.

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Alternatively it may be possible to serve a larger patient group by increasing the indirect patient contact time e.g. using assistants, carers or others to carry out some of the delegated direct patient contact work or by working to improve the communication environment thereby lessening the dependency on direct contact time with the speech and language therapist.

These aspects of calculating speech and language therapy staff time should be related to evidence of models of good practice, skill mix and the needs of the local population.

Example 2

Using an example where the number of referrals may be predicted and an average amount of patient input time is known from the model of service being delivered and data from previous service activity audits it is possible to estimate the number of therapists that are required.

The following hypothetical example uses an out patient clinic where the number of new referrals per annum has been predicted to be approximately 248 people/children.

- From service activity audits the average number of sessions given per child/person is 15.
- From service activity audits it is known that with the model of practice currently operating the direct patient input time is 57% of the total patient input time and the average direct contact time is one hour per session. Therefore per session the average patient input time is 1.75 hours (1 hr 45 min) and includes direct and indirect patient time.
- From service audit the patient available time is 55% of total SLT available time

Example 2

| | Per year | Per month (Yr ÷ 12) | Per week (Yr ÷ 52) | Per day (Yr ÷ 52 ÷ 5) |
|--|----------|------------------------|-----------------------|--------------------------|
| Number of new cases | 248 | 20.67 | 4.8 | 1 |
| Average number of treatment sessions per average case | 15 | | | |

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|--|------------------------------|--------------------------|------------------------------|------|-----|
| <p>Patient available hrs = 55% of the total available hrs; to find the total available hrs needed to manage a caseload of 248 referrals a year at an average of 15 sessions per patient with an average direct and indirect contact time of 105 minutes the formula is: Average number of sessions x number of new referrals x average contact time per session (direct and indirect inclusive) ÷ known percentage of patient available hours (55%)</p> | | | | | |
| Number of patient input hours required 15 x 248 x 1 hr 45 min | 6510 | 543 | 126 | 26 | |
| Total SLT hrs (6510/55x100) | 11836 | 986 | 228 | 45.5 | |
| On duty hours available | Agenda for Change | 1582.5 | 131.9 | 30.4 | 6.1 |
| | | 1567.5 | 130.6 | 30.1 | 6 |
| | | 1537.5 | 128.1 | 29.6 | 5.9 |
| | Pre Agenda for Change | 1475 | 122.9 | 28.4 | 5.7 |
| | | 1461 | 121.75 | 28.1 | 5.6 |
| | | 1433 | 119.4 | 27.6 | 5.5 |
| <p>To find the number of WTE needed the formula is: Total SLT hours ÷ On duty hours available (pre and/post Agenda for Change)</p> | | | | | |
| | | Agenda for Change | Pre Agenda for Change | | |
| WTE required - | New to NHS | 7.5 | 8 | | |
| | 5 yrs service | 7.6 | 8.1 | | |
| | 10 yrs service | 7.7 | 8.3 | | |
| <p>To find number of case per WTE the formula is: Number of new referrals ÷ number of WTE therapists</p> | | | | | |
| Cases per WTE | 33 cases per wte | | 31 cases per wte | | |

Summary

The methods and examples given are guidance on how to calculate staffing time available.

The hours available and the number of whole time equivalents needed will be affected by a variety of factors: the level of skills and knowledge of the therapists required and currently employed, the

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number of years experience they have, the model of service provided, the skill mix of the rest of the service and the workload required for each therapist.

This tool should be used in conjunction with other tools from the RCSLT Workforce Planning Guidelines.