

Department of Health: National Health Reference Price List (NHRPL)

Appendix C**Workload Recording Method (Unit Values)****Introduction**

The objectives of work measurement is twofold, namely, to determine how much work can be done in a specified period of time in terms of volume and quality, and to determine how long it will take to do a given amount of work.

The Workload Recording Method is used to determine the time required by an average Health Care Provider (HCP) to provide services. The mean time required to provide that service is termed the Unit Value (UV) of that service and is expressed in minutes of Workload Units (WU). The unit value of a service is used to allocate overhead costs to that particular service, and is also of cardinal importance in the determination of relative value units for services.

Depending on the HCP type, workload units can be expressed in minutes of Radiology Workload Units (RWU), Dental Workload Units (DWU), Psychology Workload Units (PWU), etc. The Workload Recording Method provides a common comparable measuring approach among HCP types and adaptation(s), where necessary, should be clearly identified.

Unit Values per Service and Standard Volume Adjustment

Most clinical services can be expressed in terms of minutes, rather than hours required completing. Workload units are thus the minutes of direct labour and the measure of activity for HCP's in their practices and one WU is equal to one minute of clinical, clerical and assistant time.

Time studies should be conducted in order to generate the necessary statistics to assign permanent or temporary unit values to services. The time studies should be conducted in various places of services (sites) in the RSA and should measure the time required to perform several activities, of which the following six categories are specified:

1. **Treatment:** Treatment includes the steps required to perform the procedure up to and including the recording thereof on the patient's record. Treatment includes clinical time, assistant time and clerical time:

Clinical time. Clinical time refers to the time required to complete the actual procedure, as well as pre-, inter- and post- procedural activities. In a dental practice for example, the placement and removal of cotton rolls, the application of a rubber dam, the changing of instruments needed to do the procedure (e.g. burs, scaler points, hand pieces, etc.) and chair side 'laboratory activities' (e.g. temporary crowns, fitting a prosthesis, etc.) are all included as part of clinical time

Assistant time. Assistant time also known as aide time. Examples of assistant time include developing of radiographs, the mixing of materials, and evacuation of the patient's mouth during the procedure, etc.

Clerical time. Clerical time includes recording the procedure on the patient's record and if applicable, converting the clinical findings to a meaningful report (when it is required as part of the procedure).

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2. **Handling of specimen/laboratory work:** The handling of specimen/laboratory work includes the time for completion of a laboratory requisition (lab-slip), delivering the laboratory work to the reception / despatch area, labelling thereof and entering information on a laboratory control sheet (activities required for transfer from the HCPs office to a laboratory). Handling of laboratory work excludes the handling of incoming (completed) laboratory jobs. Handling of laboratory work excludes laboratory services.
3. **Pre-treatment patient care activities:** Pre-treatment activities include the steps from guiding the patient from the reception area to completion of all preliminary preparation normally required in the presence of the patient before treatment can proceed. Examples of pre-treatment activities in a dental practice include regaining the patient's record, guiding the patient from the reception area to the surgery, seating the patient, preparation of the patient (i.e. placing of a bib and removal of prosthesis (removable), spectacles, lipstick, etc.), repositioning of the equipment, preparation of the HCP (i.e. washing of hands, gloving, etc.), checking the patient's record and counselling in relation to the visit.
4. **Post-treatment patient care activities:** Post-treatment activities include the steps normally required in the presence of the patient after treatment has been completed, up to guiding the patient back to the reception area. Examples of post-treatment activities in a dental practice include re-dressing the patient (e.g. removing the bib, replacing removable prosthesis, spectacles, etc.), repositioning of dental equipment, removing the patient from the chair, counselling regarding the next dental visit, and re-dressing of the HCP (e.g. removing gloves, washing hands, etc.), guiding the patient to the reception area and filing the patient's record.
5. **Routine surgery preparation:** Routine surgery preparation includes all support activities (in relation to the preparation of the surgery and reusable supplies for performing procedures) performed by HCP's and/or staff in the surgery after treatment of the patient. These include between patient disinfecting of surfaces and surgery preparation of instruments for sterilising, etc., but exclude the actual sterilising time of an autoclave or other type of steriliser.
6. **Maintenance and repair:** Maintenance and repair include all standard surgery maintenance procedures performed by HCP's and/or staff at set intervals (e.g. daily, weekly, monthly). It encompasses only those activities which are done occasionally and which need not be repeated for each patient treated, e.g. daily disinfecting and cleaning of the surgery prior to shut down. Maintenance and repair include emergency repairs, part of which is defined as time spent identifying the defect. It does not include repair of major breakdowns.

Unit Values per Service

Only the "treatment time" (clinical, assistant and clerical) is used to determine the unit value of a procedure.

The time spent on "handling of specimen/laboratory work" for transfer from the HCPs office to a laboratory is added to the treatment time to determine the unit value of those procedures that requires such handling. Take note that this does not apply when a HCPs Schedule has a listed code for the handling of specimen/laboratory work (See CPT code 99000 as an example).

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The time spent on the handling of laboratory work should not be determined for each service involving laboratory work, but the mean time thereof should be allocated to these services. The reasons for this approach are fourfold:

- Part of the action of handling laboratory work is often done by the HCP after patients have left. In order to enhance the timing of this 'break in continuity', it should be timed separately.
- The time spent on this activity may vary from practice to practice. There is however, no significant difference in the time spent on handling the laboratory work between different services, which makes differentiation per service type unnecessary.
- There are dental services, for example, complete dentures that require the action of handling laboratory work more than once as part of the same procedure.
- Comparisons between services on the time spend to complete, are more accurate if the handling of laboratory work can be excluded.

Standard Volume Adjustment

The Standard Volume used in the NHRPL has been standardised for all provider types. The time spent on pre- and post-treatment patient care activities, routine surgery preparation, as well as maintenance and repair can be classified as surgery downtime, and is used to determine/adjust the Standard Volume.

Many non-specified activities vary significantly between practices, therefore, some activities may never be time studied or assigned a unit value. Examples of non-specified activities include: Accounting/billing activities; administrative activities; breaks and personal time including formal breaks mandated by law, contract or policy, wash-up or other personal time; computer orientated activities; evaluation, development and research; formal education; procedures without unit values; supplies and equipment; training, etc. Some of these activities can be taken into account in order to calculate the Standard Volume.

Permanent, Temporary and Extrapolated Unit Values

The time studies should include all clinical, clerical and assistant time expended toward the completion of a service. It should involve more than one HCP providing the service and should be performed several times in various locations. Each unit value per service should represent an averaging of how the service is performed in dissimilar facilities by different HCP's.

Acceptable studies should then be edited and presented to the NHRPL review process. Depending on a statistically significant number of HCPs, who have each completed an acceptable number of timings, permanent or temporary unit values are assigned to values generated from the time studies:

A permanent (p) unit value per service is established only after appropriate data is obtained from a statistically significant number of HCPs who have each completed an acceptable number of timings.

An interim temporary (t) unit value per service is assigned to a service based on fewer time studies, which meet the requirements established by the NHRPL review process. A

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temporary (t) unit value may not be assigned without a time study and may not be assigned by an individual HCP in the field.

An extrapolated (e) unit value per service may be assigned to a service before standard time studies have been performed. The extrapolated (e) unit value may be derived in part from components of previous time studies on similar services.

Determining Unit Values

A time study is a work measurement technique, used to determine the time a qualified worker takes to complete a particular element of a task under specified circumstances at a defined rate.

A qualified HCP in South Africa is a person, registered at the Health Professions Council of South Africa (or others as may be required), who has the physical, mental and intellectual characteristics to do the work with a particular level of knowledge, application and skill. These requirements imply that

- The quality of the final product meets with acceptable clinical standards;
- The 'best' method (current acceptable standard of care) is followed;
- The available equipment and technology are utilised optimally;
- Materials are not wasted, and
- The highest degree of safety standards is maintained.

The time it takes to complete a service, is measured with a stopwatch through direct observation. The time it takes to complete a service must be a 'fair time'. A fair time is the standard time an average HCP requires to complete a procedure satisfactorily.

The study process starts by analysing all services into basic steps or elements. These steps are used to clarify the scope of the service, and permit the critical appraisal and possible improvement of the method of performing the service. However, the purpose of the study is to determine the time it takes to provide the service only, and not to improve on the method(s) used. A service will thus only be timed in steps when it is usually not completed in one visit.

The next step in the process is to time the steps (or visits) of the service to build up the total basic time for that service and HCP.

The standard time for a particular service and HCP is the sum of the observed values (total basic time) divided by the number of observations. In other words, the standard time is the mean time that a particular HCP requires to provide a particular service.

The standardised unit value for a service is the mean of the standard times of that service, and can be defined as the mean number of workload units (expressed in minutes) of technical, clerical, and assistant time required by experienced HCPs of average capability to perform all necessary steps in order to complete the defined service once.

An acceptable time study should include the recording of the following data:

- The HCP type that has performed the procedure;

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- The location where the procedure has been performed – surgery (in office); theatre (in hospital) or other;
- The procedure code and description;
- The number and description of the steps of the procedure (if appropriate);
- The actual timing per step of the procedure; and
- The total time of the procedure.