

EXCELCARE TIMING DEFINITIONS AND METHODOLOGY



This document provides definitions and examples for direct and indirect nursing time and the methodology for timing nursing activities for use in the ExcelCare system. Consistent application of the definitions across health units will ensure there is no overlap between what is counted in ProAct and ExcelCare. Similarly consistent application of the timings methodology will ensure statistically valid and reliable timings. It is important that the flexibility associated with clinical assessment and nursing practice is maintained.

SECTION 1 - TIMING DEFINITIONS WITHIN EXCELCARE

It is important to ensure there is consistency in reporting from ExcelCare and to avoid overlapping activities between ProAct and ExcelCare.

1.1 DIRECT AND INDIRECT TIME DEFINITIONS

The ExcelCare system separates nursing time into direct and indirect components as follows:

1.1.1 DIRECT TIME:

Direct time is the time allocated to perform care/activity by nurses that can be clearly attributed to a specific patient. The time (in minutes) is attached to the Observations and Interventions.

- **Embedded Time** is the time allocated which is assigned to ALL patients. Activities that are a component of specific nursing care but do not require an individual description. The time is 'embedded' into an existing UOC that is assigned to all patients' care plans.

1.1.2 INDIRECT TIME:

Indirect time is the time allocated to perform activities by nurses which affects all patients in a unit/area as defined in ExcelCare as a Station. This time cannot be directly attributed to an individual patient and is prorated to all current patients at the Station.

Indirect time is subdivided into fixed and variable.

- **Variable Indirect Time** is the time allocated that will change according to patient numbers and/or activity.
- **Fixed Indirect Time** is the time allocated that is not affected by changes in patient numbers and/or activity.
- **Unit/Ward (Station) Fixed Indirect Time** is the fixed time allocated for activities that occur whether there are patients present or not on the unit/ward.
(NOTE: The time is captured in the ExcelCare Required and NEIS reports using this data field but is not captured in the Trendstar export.)

It is essential that there is no overlap between activities classified in ExcelCare as indirect and ProAct as indirect. All activity coded in ProAct as Indirect Productive as detailed in the document 'ProAct Definitions' must not be defined in ExcelCare as an indirect time. ProAct worked and paid codes and the activities captured in worked and paid codes are the only activities to be captured in ExcelCare.


PROACT	
PRODUCTIVE (ProAct worked and paid codes = Productive Time)	NON-PRODUCTIVE
DIRECT	INDIRECT
Interface 	
EXCELCARE	
TOTAL TIME	
DIRECT INDIRECT	

Table 1 - Data relationship between ProAct and ExcelCare

1.2 INDIRECT ACTIVITIES

The following table indicates activities that have been identified as being common practice. It is acknowledged that organisations may identify other indirect activities. These are to be allocated to the fixed or variable categories according to the definitions in point 1.1.2. Depending on the organisations core business, some of the following activities may be interchangeable between the subcategories of indirect time.

NOTE: Activities CANNOT be used in MORE than one category.

	ACTIVITIES
DIRECT TIME: Embedded Time:	All available UOC's ➤ Meal trays ➤ Tea/coffee rounds

INDIRECT TIME:	
1. Variable Indirect	<ul style="list-style-type: none"> ➤ Telephone Calls ➤ Call Bells ➤ Linen Bag Maintenance ➤ Bed Cleaning ➤ Documentation <ul style="list-style-type: none"> - ExcelCare - Casenotes - reading ONLY
2. Fixed Indirect¹	<ul style="list-style-type: none"> ➤ Handover ➤ DDA Checks ➤ Emergency Trolley Checks ➤ Tea Breaks ➤ Equipment Checks ➤ Linen Bag Maintenance ➤ Telephone Calls ➤ Liaison Communications <ul style="list-style-type: none"> - DON's Report ➤ Ward Rounds <ul style="list-style-type: none"> - Eg Drs, Physio - Ward co-ordination (when coded as WP in ProAct)

¹ Personal Time - 7 Minutes (Clarification)

In the Australian Industrial Relations Commission, Industrial Relations Act 1988, page 34, Ordinary Hours of Work, section (b), it states "that except for meal breaks and except also for one additional break if required....." As this does not mandate a tea break for all staff, it has not been included in the indirect time activities.

3. Ward/Unit (Station) Fixed Indirect	<ul style="list-style-type: none"> ➤ Hand-over ➤ Checking DDA's/emergency trolley ➤ Door bells ➤ Telephone calls ➤ Linen bag maintenance
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1.3 GUIDELINES FOR IDENTIFICATION OF INDIRECT TIME

In order to identify what nursing activities are considered indirect the following categories can be considered. These categories are presented as a guideline only to determine and group indirect nursing activities.

1.3.1 Documentation:

- Case-notes:
 - does not include writing in case notes as this is direct time
 - May include, reading case notes
- Other:
 - Ordering stores, patient allocations, reading ward communication and other hospital specific documentation

1.3.2 Communication:

- Incoming phone calls, call bells (answering, not interventions)
- Liaison with other health professionals
- Hand-over
- Ward meetings/rounds
 - Patient portable phones (calls)

1.3.3 House Keeping:

- Empty linen bags
- Re-stocking
- Cleaning

NOTE: An organisation may decide that there are no housekeeping activities undertaken by Nurses.

1.3.4 Legal & Professional Management:

- DDA's
- Emergency trolley
- Orientation (Only to include orientation not captured in ProAct)

1.3.5 CNM/CNC/Shift Coordinator/Team Leader/Ward Coordinator:

- Liaison Communications
 - Director of Nursing Report
- Ward/Unit management (Only to include Ward/Unit Management not captured in ProAct)
- Bed management

1.3.6 Embedded Times:

Organisational decision of what is embedded and where it is attached for example:

- Checking ExcelCare

SECTION 2 - TIMINGS METHODOLOGY

2.1 TIMING FREQUENCY

Direct and indirect timings are to be reviewed when there have been changes in nursing practice/procedures, the ward/units core business, geography of work areas, variation in procedures/activities between areas.

2.2 STAFF CLASSES

The staff classes that are defined in ExcelCare reflect the minimum skill of nurse required to perform the selected nursing activity. Therefore the system set up should define:

- EN (Enrolled Nurse) which includes Under Graduate Nurses as outlined by '*Nurses' (South Australian Public Sector) Enterprise Agreement 2001*²;
- RN (Registered Nurse); and
- RM (Registered Midwife).

2.3 STATISTICAL VALIDATION OF TIMINGS

All timings are recorded as 'the average time (in minutes) that the average nurse spends performing the activity under average circumstances for the average patient.' The specific nursing activity is timed across all patients groups (if appropriate), all shifts (if appropriate) over seven (7) days.

The 10% trimmed mean obtained from 20 observations or timings is taken as the average. To obtain the 10% trimmed mean, the 20 observations or timings are taken and then sorted from lowest to highest value. The two lowest and two highest readings are then discarded, and the usual arithmetic mean calculated from the remaining 16 observations.

NOTE: If more than 20 timings are collected discard the top 10% and the lowest 10% of the values. For example, 58 timings are collected therefore the top 6 and lowest 6 are discarded leaving 46 timings. To obtain the trimmed mean the sum of the 46 timings is then divided by 46.

Example

The following 20 timings (in minutes) were observed for the insertion of an indwelling catheter in a male patient:

17	19	19	18	14	14	19	24	19	19	18	16	24	17	18	14	15	23	22	21
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Sorted into size order these become:

14	14	14	15	16	17	17	18	18	18	19	19	19	19	19	21	22	23	24	24
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Drop the two lowest and highest observations:

14	15	16	17	17	18	18	18	19	19	19	19	19	21	22	23
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The 10% trimmed mean is now simply the sum of the above 16 observations divided by 16, i.e. 10% trimmed mean = $294/16 = 18.38$ minutes.

² Nurses' (South Australian Public Sector) Enterprise Agreement 2001 Section 10.6 states '*A new Undergraduate Nursing Student (UNS) classification is introduced. The classification is provided to facilitate the part-time and/or temporary employment of final-year university nursing students. UNS's are employed subject to them working under the supervision of a Registered Nurse.*'

2.4 TIMING PROCESS

The timing values, for use in ExcelCare, are recorded by nurses using work-sampling techniques. The relevant definition is for stop/start times. That is, a timing commences at the point when the nurse begins preparation for the activity and stops when the nurse completes the activity, including cleaning up and disposal of equipment where this is defined in the Observation and Intervention (OI). Interruptions are excluded from the time.

A total of twenty (20) timings are collected randomly and should be representative of all areas and patients where the activity occurs and a range of nursing expertise.

If the timings sample reveals that some patient groups have significant deviations from the mean, consideration should be given to reviewing if the Unit Of Care is appropriate to the needs of the patient group.

Possible bias' that may occur during the timing process, that may influence the quality of timings, could include:

- reliability of collection
- definition and specificity of activity to be timed
- skill of nurse performing procedure
- differences in procedures/activities between areas
- geography of work areas
- patient variables

If there is bias operating related to geography and skill then the total sample should included 20 timings of *each* skill or type of geographical setting.

The direct timing should be collected within a few weeks to reduce any possible bias's that may occur. If it is not possible to collect the timings within this period of time, then the UOC should:

- *Professionally assessed time added until there is significant timings collected; or*
- *The UOC should be time adjusted.*

As agreed to by the Department of Human Services and the Australian Nursing Federation (ANF) on 22 November 2002:

'All sites must use the agreed DHS timings process (package), which requires the actual repeated timing of the Observations and Interventions (OI's) to be delivered and the determination of a mean time for inclusion in the UOC. Staff consultation should take place in the same manner as set out for the review of UOC's above.'

'Where new UOC's are being developed or implemented without timings that have been validated through this process, the relevant nursing staff should be consulted about the interim timing to be used and this process should reflect the same consultative process as set out for the review of UOC's ...'.³

³ As Agreed by Department of Human Services, Directors of Nursing, Australian Nursing Federation, 'Operational Issues Associated With ExcelCare' (v2 300902), 2002

REFERENCE:

1. Department of Human Services, Directors of Nursing, Australian Nursing Federation, '*Operational Issues Associated With Excelcare*' (v2 300902), 2002
2. South Australian Health Commission, Nursing Automated Systems Project, '*Direct /Indirect Timings*' Document
3. South Australian Health Commission, Nursing Automated Systems Project, '*Statistical Validation of Timings for Excelcare*' Document

NOTE:

AGREED IN PRINCIPLE BY THE ANF

DATE: 21 MAY 2003

APPROVED BY THE BRANCH COUNCIL OF THE AUSTRALIAN NURSING FEDERATION

DATE: 17 JUNE 2003

ENDORSED BY THE NURSING INFORMATION SYSTEMS ADVISORY COMMITTEE

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