New Ways – Wait Calculation

Version 01 published April 2009

Document version

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<th>Version</th>
<th>Date</th>
<th>Comments</th>
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<td>0.3</td>
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<td>Fourth draft - Inclusion of change to effective unavailability</td>
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<td>1.0</td>
<td>01/04/2009</td>
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1. References

This document used the following documents as references:

“Specification of Data Required and It’s Extraction”, ISD NSS, v1.1a, 28th February 2007
2. Introduction

2.1. Purpose

The purpose of this document is to aid the understanding of how the wait of a patient is calculated under the New Ways rules.

This document is not meant as a technical specification, but rather an aid to any developments.

2.2. Scope

This document focuses on the key waiting time calculations:

1. components/calculations for guarantee date
2. wait to a point in time (census date)
3. wait to appointment/admission (list removal date)

2.3. Assumptions and Issues

There is an assumption that the audience for this document has an understanding of the New Ways concepts and rules.
3. Components/Calculations for Guarantee Date

3.1. Overview
This section describes all of the components that make up the calculation of the guarantee date. It gives a brief description of each component, and the rules for determining them.

3.2. Components

3.2.1. Initial Start Date
This is the date that is the initial start of the patient’s wait for treatment.

For New Outpatients the initial start date is the Referral Received Date.

For Return Outpatients (for procedure), Day Cases and Inpatients the initial start date is the Waiting List Date.

3.2.2. CNA/DNA Start Date
When a patient cancels an appointment (CNA) or does not turn up for an appointment (DNA), their clock will be reset to zero if they are retained on the waiting list. This means that the CNA or DNA date may constitute the new starting point for the purpose of the calculation.

The CNA/DNA Start Date should be retrieved as the latest chronological CNA/DNA date.

The CNA/DNA date is supplied as the Non-Attendance Date. The CNA date is the date that the patient contacts the service to cancel the appointment (not the date of the appointment). The DNA date is the date of the appointment that the patient failed to attend.

Non-Attendance Dates as a result of service cancellation are NOT included. Service cancellations do not affect the waiting time clock.

3.2.3. Offer Start Date
When a patient declines two reasonable offers their clock will be reset to zero if they are retained on the waiting list. This means that the date the response is received to the second offer of the last declined pair may constitute the new starting point for the purpose of the calculation.

The Offer Start Date should be retrieved as the maximum chronological Response Received Date of the latest declined pair of offers.

3.2.4. Effective Start Date for Calculation of Guarantee Date
When calculating the waiting time for a patient, there are three dates which should be used to determine the effective starting point for the calculation – (1) Initial Start Date; (2) CNA/DNA Start Date; and (3) Offer Start Date.

The Effective Start Date for Calculation of the Guarantee Date should be set to the latest of these three dates.
3.2.5. Effective Unavailability
When a patient is unavailable for a period of time during their episode of wait, all periods of unavailability are taken into account when calculating the guarantee date.

Under New Ways the following may be considered as “effective” unavailability:
- Any period of social or medical unavailability.
- Any period after the PFB response time as stated in the invitation.

Only unavailability that falls on or after the Effective Start Date for Calculation (3.2.4) is deemed “effective”. For example:

1. Where the Effective Start Date for Calculation falls within a social or medical unavailability period, the unavailability that occurs after the start date should be included as Effective Unavailability.
2. Where the Effective Start Date for Calculation falls within a PFB unavailability period then the portion after the Effective Start Date for Calculation should be included as Effective Unavailability.

For the determination of the Guarantee Date, each period of Effective Unavailability must be applied sequentially as there may be unavailability recorded after the Effective Start Date, but which is also beyond the guarantee end date.

3.3. Guarantee Date Calculation
Once all of the Components in section 3.2 have been determined, the calculation of the guarantee date becomes:

1. Guarantee End Date (No Unavailability) = Effective Start Date for Calculation + Guarantee Period

2. Guarantee End Date (Unavailability) = Add any Effective Unavailability that falls between the Effective Start Date for Calculation and the Guarantee End Date (as described in 1 above).

3. If the Guarantee End Date (Unavailability) falls within an Unavailability period, add the Effective Unavailability period.

4. Repeat 3 until the Guarantee End Date (Unavailability) DOES NOT fall within an Effective Unavailability Period.

The calculation will not produce a result if the guarantee end date falls during a period of unavailability, which has no end date.

Note: - Currently the data warehouse sets all waiting list records to a guarantee period of 105 days and does not differentiate between specialties or procedures.
4. Components/Calculations Based on Reporting Date

4.1. Overview
This section describes all of the components that make up the final calculation. It gives a brief description of each component, and the rules for determining them.

4.2. Components

4.2.1. Reporting Date
This is the date on which the wait calculation is being calculated.
Either the Census Date or List Removal Date.

4.2.2. Initial Start Date
This is the date that is the initial start of the patient's wait for treatment.
For New Outpatients the initial start date is the Referral Received Date.
For Return Outpatients (for procedure), Day Cases and Inpatients the initial start date is the Waiting List Date.

4.2.3. CNA/DNA Start Date
When a patient cancels an appointment (CNA) or does not turn up for an appointment (DNA), their clock will be reset to zero if they are retained on the waiting list. This means that, depending on the reporting date, the CNA or DNA date may constitute the new starting point for the purpose of the calculation.
The CNA/DNA Start Date should be retrieved as the latest chronological CNA/DNA date prior to the Reporting Date (4.2.1).
The CNA/DNA date is supplied as the Non-Attendance Date. The CNA date is the date the patient contacts the service to cancel the appointment (not the date of the appointment). The DNA date is the date of the appointment that the patient failed to attend.
Non Attendance Dates as a result of service cancellation are NOT included. Service cancellations do not affect the waiting time clock.

4.2.4. Offer Start Date
When a patient declines two reasonable offers their clock will be reset to zero if they are retained on the waiting list. This means that depending on the reporting date, the date the response is received to the second offer of the last declined pair may constitute the new starting point for the purpose of the calculation.
The Offer Start Date should be retrieved as the maximum chronological Response Received Date of the latest declined pair of offers, prior to the Reporting Date (4.2.1). Where a List Removal Date exists, this must be the maximum chronological Response Received Date of the latest declined pair prior to the List Removal Date.
4.2.5. Effective Start Date for Calculation

When calculating the waiting time for a patient, there are three dates which should be used to determine the effective starting point for the calculation – (1) Initial Start Date; (2) CNA/DNA Start Date; and (3) Offer Start Date.

The Effective Start Date for Calculation should be set to the latest of these three dates.

4.2.6. Effective Unavailability

When a patient is unavailable for a period of time during their episode of wait then in most cases the unavailability period is subtracted within the waiting time calculation.

Under New Ways the following “effective” unavailability should be subtracted:

- Any period of social or medical unavailability.
- Any period after the PFB response time as stated in the invitation.

Only unavailability which falls within the Effective Start Date for Calculation and the Reporting Date is deemed “effective”. For example:

(3) Where the Effective Start Date for Calculation falls within a social or medical unavailability period the unavailability that occurs after the start date should be included as Effective Unavailability.

(4) Where the List Removal Date falls within a social or medical unavailability period, the unavailability that occurs before the removal date should be included as Effective Unavailability.

(5) Where the Effective Start Date for Calculation falls within a PFB Unavailability Period then the portion after the Effective Start Date for Calculation should be included as Effective Unavailability.

(6) Where the List Removal Date falls within a PFB Unavailability Period then the portion before the List Removal Date should be included as Effective Unavailability.

4.3. Calculation

Once all of the Components in section 4.2 have been determined, the calculation of the wait becomes:

**Reporting Date – Effective Start Date for Calculation – Effective Unavailability**
### 4.4. Example Calculations

The following examples are based on a Census Date of 30/06/2007.

<table>
<thead>
<tr>
<th>Initial Start Date</th>
<th>List Removal Date</th>
<th>Report Date</th>
<th>Episode Length</th>
<th>Appointments</th>
<th>Start Date for Calculation</th>
<th>Type</th>
<th>Start Date</th>
<th>End Date</th>
<th>Days</th>
<th>Applic</th>
<th>Wait Time (Total Days)</th>
<th>Wait Time</th>
<th>Notes</th>
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<td>10/05/07</td>
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<td>7</td>
<td>90</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
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<td>30/06/07</td>
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<td>89</td>
<td></td>
<td>02/04/07</td>
<td>U</td>
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<td>11/05/07</td>
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<td>8</td>
<td>82</td>
<td>11</td>
<td>5</td>
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<tr>
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<td>04/04/07</td>
<td>U</td>
<td>05/05/07</td>
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<td>70</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>04/04/07</td>
<td>23/06/07</td>
<td>23/06/07</td>
<td>80</td>
<td></td>
<td>10/05/07</td>
<td>U</td>
<td>05/05/07</td>
<td>14/05/07</td>
<td>10</td>
<td>5</td>
<td>39</td>
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<td>4</td>
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<td></td>
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<td></td>
<td></td>
<td>15/05/07 – Accepted/CNA’s on 10/05/07</td>
<td>23/06/07 – Accepted/Attended</td>
<td>10/05/07 – Accepted/CNA’s on 05/05/07</td>
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<td>01/07/07 – Accepted</td>
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</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12/06/07 – Accepted/DNA</td>
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<td>3 4</td>
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</table>

**Notes:**
- Unavailability is not applicable because it is after the report date.
- Unavailability is not applicable because it is after the list removal date.
- Because the CNA falls within a period of unavailability, only the period of unavailability after the CNA is applicable.
- Because the CNA falls within a period of unavailability, only the period of unavailability after the CNA is applicable. Appointment on the 01/07/07 has no effect has it is after the report date. Individually the periods of unavailability would be applicable and because they are consecutive they are considered a single period of unavailability spanning 10 days.
- Patient DNA'd and was removed from the list. Therefore because of DNA, wait on list removal is zero. Wait on 11/06/2007 is 59 days.
<table>
<thead>
<tr>
<th>Initial Start Date</th>
<th>List Removal Date</th>
<th>Report Date</th>
<th>Episode Length</th>
<th>Appointments</th>
<th>Start Date for Calculation</th>
<th>Type</th>
<th>Wait Time (Total Days)</th>
<th>Wait Time</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>03/04/07</td>
<td>12/06/07</td>
<td>12/06/07</td>
<td>70</td>
<td>25/04/07 – Declined 27/04/07 – Declined</td>
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<td>U</td>
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<td></td>
<td>20/06/07 – Declined 21/06/07 – Declined</td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This example assumes that for the final set of offers, the operator phoned on the 21/06/07, and because the patient declined again, removed them from the list.