Monitor
Making the health sector work for patients

NHS England

Guidance on mental health currencies and payment

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Contents

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1 Introduction

This guidance is a support document to the *2014/15 National Tariff Payment System*. While we encourage providers and commissioners to use this guidance, Monitor's enforcement powers only apply to rules set out in the *2014/15 National Tariff Payment System*.

We have based this guidance on the Department of Health's (DH) *Mental Health Payment by Results Guidance for 2013-14*; it remains under review by NHS England and Monitor as we undertake further work on the design of the long-run payment system. In particular, we will be reviewing the costing and quality building blocks that support mental health payment approaches as well as the incentives created by alternative payment approaches. This includes the potential for more widespread use of patient-level information and costing systems.

The guidance describes how providers can use the adult mental health currencies, and how they can be used by commissioners and providers as the basis for setting local prices. The development and implementation of these currencies is a step towards improving payment approaches for mental health services.

This introduction provides an explanation of the currencies and sets them in the regulatory context. The remainder of the document provides guidance on:

- how to use the currencies (Section 2);
- how to agree payment terms using the currencies (Section 3).
- how to start using quality and outcome measures as an integral part of the currency structure (Section 4); and
- data (Section 5).

1.1 Regulatory context

The currencies[1], known as 'care clusters', cover most mental health services for working age adults and older people. The care clusters were mandated for use from April 2012 by the DH. The Health and Social Care Act 2012 (the 2012 Act) gave NHS England and Monitor responsibility for the national tariff from 2014/15. In June 2013, Monitor and NHS England published a proposed payment approach for adult mental health services. In October 2013, based on feedback, NHS England and Monitor proposed in the consultation notice (among other things) that providers and commissioners should continue to be required to use the care clusters as national currencies for 2014/15.

The payment rules around mental health services published in the *2014/15 National Tariff Payment System* remain unchanged from the consultation notice issued in October 2013. The care clusters as well as other rules around the use of the care clusters are set out in Section 7.4 of the *2014/15 National Tariff Payment System.*

Only a small number of non-substantive changes have been made to this guidance document to reflect stakeholder feedback since it was issued in draft in October 2013.

Mental health services that are not captured by the care clusters are set out in Annex A of this guidance document. Subsection 7.4 of the *2014/15 National Tariff Payment System* sets out general rules for how local prices must be set for these services.

This guidance document is designed to support the successful implementation of the care clusters and related rules in the *2014/15 National Tariff Payment System .*As stated above, whilst we would strongly encourage providers and commissioners to use this guidance, Monitor's enforcement powers only apply to the rules set out in the *2014/15 National Tariff Payment System.*

[1] Currencies are the unit of health care for which a payment is made, and can take a number of forms covering different time periods from an outpatient attendance or a stay in hospital, to a year of care for a long term condition. Tariffs are the set prices paid for each currency.

As part of the rules in the *2014/15 National Tariff Payment System*, the Mental health clustering tool (MHCT) and the Mental health clustering tool booklet (Annex 7C of the *2014/15 National Tariff Payment System*) must be used by providers. The clustering tool must be used to help inform the clustering decision, and the information that is captured must be returned along with other data as part of the monthly submission to the Mental Health Minimum Dataset (MHMDS)[2].

Care clusters and initial assessments must be used as the currencies in the standard contract between commissioners and providers. Where providers and commissioners agree an alternative payment approach, disclosure requirements described by Rule 4 in Section 7.4 of the *2014/15 National Tariff Payment System* must be followed.

The approach aims to:

- support providers to better understand the care they provide to patients and the resources used to deliver that care;
- support clinicians to make decisions that deliver the best possible outcomes for patients and improve the quality of care provided; and
- provide information which will enable commissioners and patients to compare provider organisations and to make well-informed decisions.

1.2 Currencies

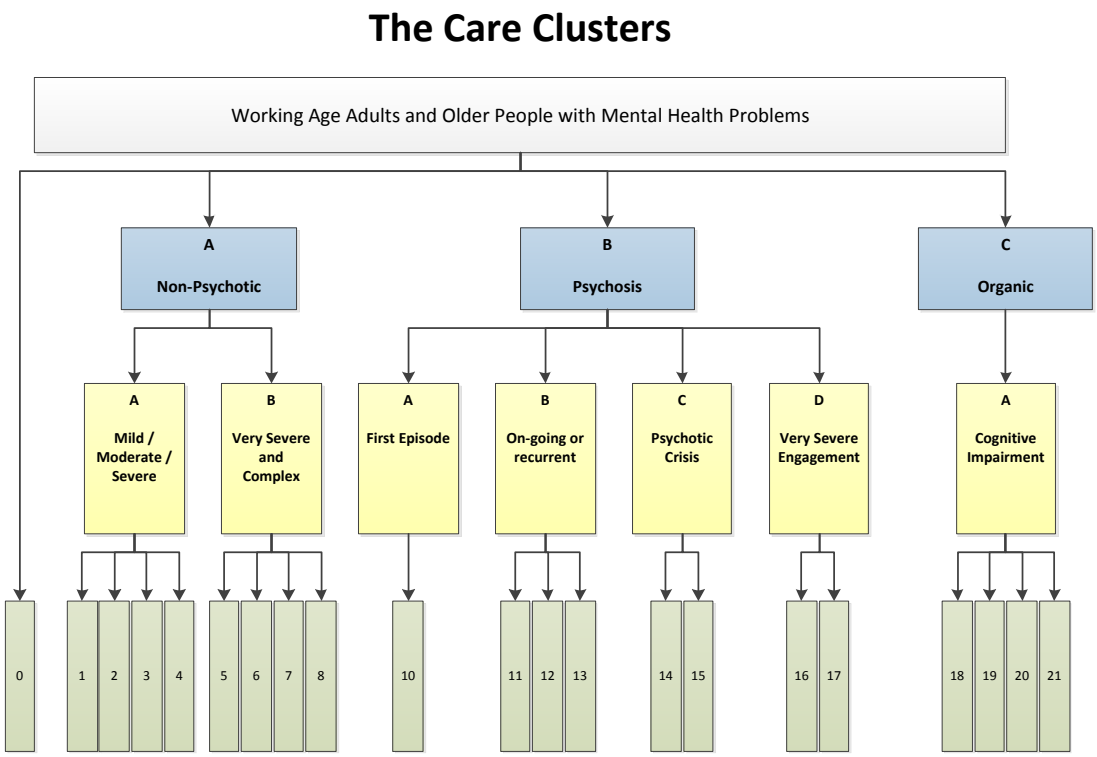
There are 21 care clusters in use, organised under three super classes: non-psychotic, psychotic and organic, plus a variance cluster, zero. The clusters are illustrated in Figure 1, with further details in Table 1. There is no cluster 9 at present. Service users are allocated to the clusters using the Mental health clustering tool.

[2] MHMDS is due to become Mental Health and Learning Disabilities Dataset from April 2014.

This tool is based on HoNOS[3] and is a tool that most clinicians in England will be familiar with. It provides a way of capturing the presenting needs of service users coming into mental health services. The tool helps to group people with similar level of needs in the same cluster, although their specific diagnosis may be different. The Mental health clustering tool booklet suggests likely and unlikely diagnoses for each of the clusters. The clustering tool has 18 scales (e.g. depressed mood, problems with activities of daily living), the first 12 of which are HoNOS. Each scale is given a rating from 0 (no problem) to 4 (severe to very severe problem).

[3] Health of the Nation Outcome Scales (HoNOS) was developed by the Royal College of Psychiatrists and funded by the DH. The tool is in use in many parts of the world.

Figure 1: Overview of the mental health care clusters



It is recommended that packages of care, based on NICE and other best practice guidance, be agreed for each cluster and translated into cluster based service specifications. It is good practice for commissioners and providers to involve service users, carer groups and GPs in this process.

Many organisations have developed a set of key interventions that are offered to everyone in a cluster and a menu of other interventions that will depend on the individual needs of service users. The Industry and Mental Health Service Collaborative (IMHSeC) website[4] provides support to organisations for developing appropriate packages of care. The clusters are setting independent and for some groups of service users may include in-patient stays as well as time spent as an out-patient or under a community based team.

[4] www.mednetconsult.co.uk/imhsec/

Personal budgets have been found to improve people's quality of life and have been found to be particularly cost effective for mental health services[5]. The care clusters are not a barrier to personalisation, and the increasing use of personal budgets will help to ensure that people coming into contact with mental health providers will be offered the right package of care, based on best practice, but adjusted to meet individual requirements, depending on diagnosis and specific needs.

[5] www.personalhealthbudgets.england.nhs.uk/Topics/latest/Resource/?cid=8603

Table 1: Maximum cluster review period

Cluster number	Cluster label	Cluster review period (maximum)
0	Variance	6 months
1	Common mental health problems (low severity)	12 weeks
2	Common mental health problems	15 weeks
3	Non-psychotic (moderate severity)	6 months
4	Non-psychotic (severe)	6 months
5	Non-psychotic (very severe)	6 months
6	Non-psychotic disorders of overvalued Ideas	6 months
7	Enduring non-psychotic disorders (high disability)	Annual
8	Non-psychotic chaotic and challenging disorders	Annual
9	Blank cluster	Not applicable
10	First episode in psychosis	Annual
11	Ongoing recurrent psychosis (low symptoms)	Annual
12	Ongoing or recurrent psychosis (high disability)	Annual
13	Ongoing or recurrent psychosis (high symptom and disability)	Annual
14	Psychotic crisis	4 weeks
15	Severe psychotic depression	4 weeks
16	Dual diagnosis (substance abuse and mental illness)	6 months
17	Psychosis and affective disorder difficult to engage	6 months
18	Cognitive impairment (low need)	Annual
19	Cognitive impairment or dementia (moderate need)	6 months
20	Cognitive impairment or dementia (high need)	6 months
21	Cognitive impairment or dementia (high physical need or engagement)	6 months

2 How to use the cluster currencies

The care clusters and initial assessments are the currencies for mental health services for working age adults and older people. This section sets out how the currencies are applied to service users. This begins with the service user accessing mental health services and having an initial assessment. If accepted for treatment, the service user will be allocated to a cluster. At various points throughout the service user's care spell, this allocation will be reviewed.

2.1 Accessing mental health services

The interaction with a mental health provider starts when a service user is first referred and assessed by the clinical team. Whilst clinical assessment may extend past cluster allocation, for payment purposes, initial assessment is deemed complete once a cluster is assigned, or a patient is signposted to other services.

The initial assessment can be triggered in a number of ways, as part of a GP or mental health practitioner referral, in response to a specific request by an organisation such as the police or social services, or through service user self-referral. These initial assessments[6] can be classified in two ways, according to how the assessment was initiated and whether an individual is allocated to a care cluster or not:

(a) Assessed, not clustered and discharged

An individual may be referred by their GP or through other routes to a mental health provider for an initial assessment. Through the assessment, the mental health professional establishes that it is not appropriate for the individual to be offered specialist mental health care and hence the individual may be referred back to the GP by the mental health professional for other diagnosis or treatment, or signposted to other services. Examples of this might be referral to non-mental health related substance misuse services or identification of a physical cause

[6] An assessment may include electronic solutions such as telephone consultations and telemedicine, in addition to a face-to face meeting.

for the ill health and appropriate onward referral.

(b) Assessed, clustered, and accepted for treatment

As before, an individual may be referred by their GP or through other routes to the mental health provider for an initial assessment. The assessment process establishes that the individual needs to be offered treatment and therefore allocated to a care cluster. The individual then comes under the care of the mental health service provider, and the model of service and package of care and types of interventions should be discussed and agreed with the service user.

2.2 Assessment of service user needs

2.2.1 Initial assessment

The initial assessment period begins when a mental health provider receives a new referral from a GP or elsewhere. Experience to date suggests that this initial assessment will normally be completed within two contacts or on admission to an in-patient setting. The assessment is completed when the individual is either allocated to a cluster, or discharged.

Initial assessments are a separate national currency and should be priced separately, because at the end of this assessment a service user's interaction with a provider may be concluded. All other on-going assessments and reassessments form part of the cost of delivering care in the cluster.

Where a service user needs mental health treatment but no match to a cluster is possible, the variance cluster (cluster 0) can be used. The reasons for selecting this must be recorded along with the characteristics and MHCT ratings of the service user. Where cluster 0 is being used it may be helpful to use a 'best-fit' approach and focus on the main problem at the time of clustering.

The use of cluster 0 should be reducing over time as clinicians gain more confidence in clustering, and as the clusters are further developed to take account of less frequently encountered complex needs.

2.2.2 Further assessment

Mental health clustering should occur at three points:

- On completion of the initial assessment (as described above);

- scheduled cluster reassessments (linked to Care Programme Approach reviews where appropriate); and
- any reassessment following a significant change in need that cannot be met by the continuation of the current cluster care package.

In addition, MHCT scores must be recorded and entered into the HoNOS fields in the MHMDS at discharge following a period of treatment, but service users should not be re-clustered. Scoring service users at discharge is necessary for the evaluation of Clinician Rated Outcome Measures.

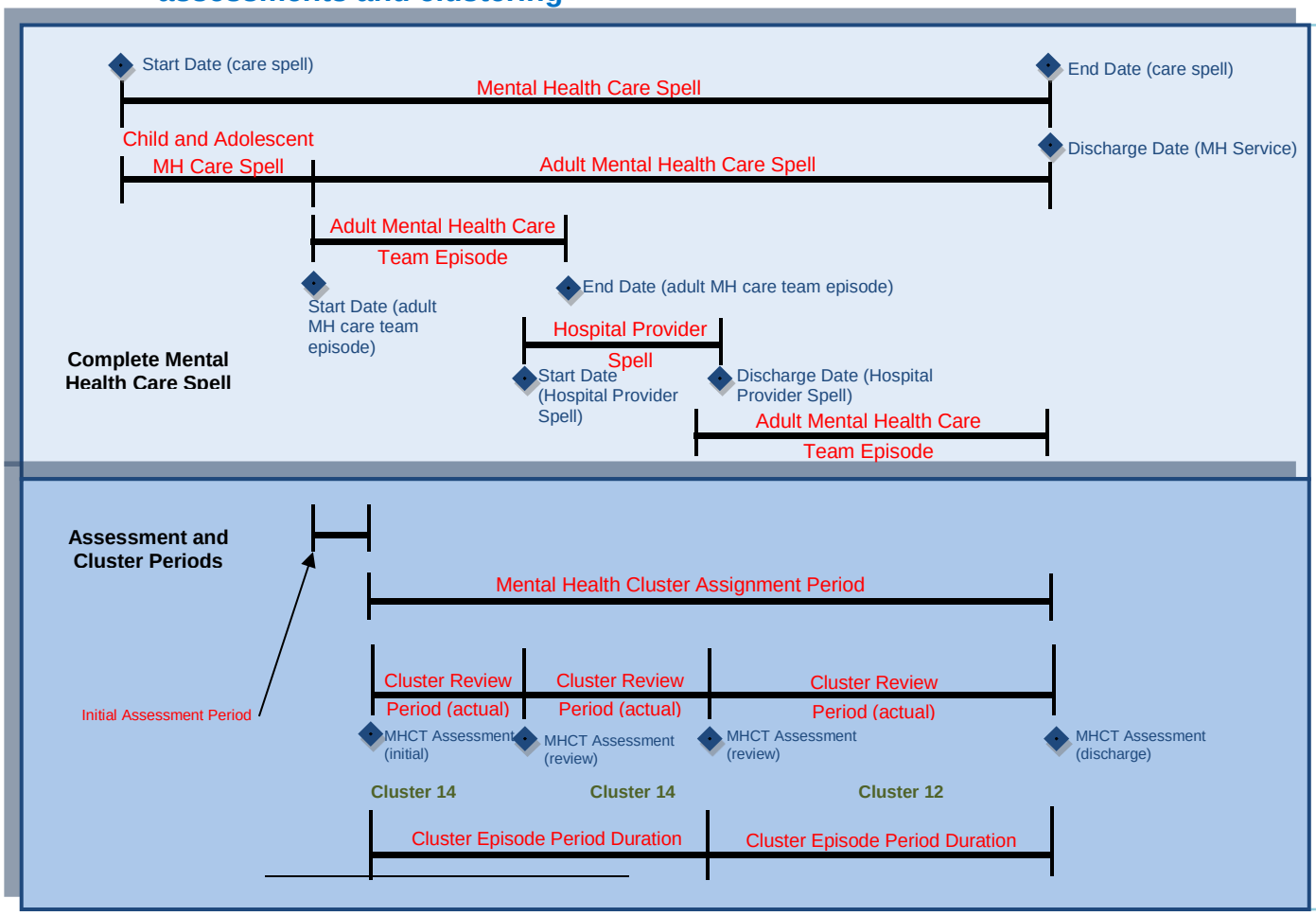
When reviewing a clustered service user, and carrying out a reassessment using the MHCT, he or she may have a lower score because they are receiving effective treatment. However, if this treatment were to be stopped, due to allocation to a lower cluster or discharge, their needs would increase again. Therefore, to avoid this, the Mental Health clustering tool booklet includes guidance on points to consider in reassessment, known as Care Transition Protocols. The protocols should be used before changing the cluster.

2.3 Care for clustered service users

After the initial assessment where the service user is allocated to a cluster they will begin a programme of treatment appropriate to their needs. For some people this will mean a period as an inpatient but for most people the care will be delivered in a community or outpatient setting. In contrast with physical health interventions which often take place over a very short period of time, people who are treated by a mental health provider will tend to have a longer relationship with their providers.

Figure 2 illustrates a complete pathway that someone with a psychotic illness might have during their time with a mental health provider, transitioning from 'out of scope' Child and Adolescent Mental Health Services (CAMHS) into adult services with a number of cluster reviews and a change of cluster before they are eventually discharged to primary care[7]. Whilst in a cluster a service user may have a range of interventions as part of their care package. These could include talking therapies, occupational therapy, and sessions with their care co-ordinator.

Figure 2: Illustration of a mental health care spell and related assessments and clustering



[7] The terms referred to in Figure 2 such as 'spell' and 'cluster episode' are explained in the guide to mental health currency terminology in Annex B to this guidance. Where applicable these terms are consistent with those set out in the Health and Social Care Information Centre's (HSCIC) data dictionary.

The clusters are mutually exclusive, and a service user can only be allocated to one cluster at a time – if they transfer to a new cluster following a reassessment, the previous cluster episode ends.

This approach of using the care clusters as currency and use of the MHCT does not obviate the need for good clinical diagnosis and psychological formulation, which remain key to the management of an individual service user's care and in tailoring the most appropriate package of interventions to address their mental health needs.

2.4 Interaction between the mental health clusters and IAPT

Improving Access to Psychological Therapies (IAPT) is a programme which aims to increase access to talking therapies for people with anxiety and depression.

IAPT only services are not currently expected to routinely cluster people receiving such a service. However, an outcomes based currency model for IAPT services is in the second year of pilots.[8] This model does now incorporate the routine collection of clustering information.

Where secondary care services offer combined treatments, which include a component of NICE-approved Psychological Therapies for anxiety and depression, service users will be clustered in the normal way. These clusters will be used as the currency for payment. Where an IAPT service provides part of the overall treatment package, subject to local agreement, the payment for the IAPT component of care may be unbundled and paid separately.

[8] www.iapt.nhs.uk/pbr/

3 How to agree payment terms

For 2014/15 we suggest that providers and commissioners move towards a contract that reflects the caseload that is being seen in each of the clusters.

While the national tariff mandates the currencies for payment purposes, and the reporting of unit prices where they are agreed (see Rules 3, 8 and 9 in Subsection 7.4 of the 2014/15 National Tariff Payment System), it also allows providers and commissioners to depart from the currencies, for example in order to agree risk sharing provisions (see Rules 4 and 10 in Subsection 7.4). Subsection 3.1 and 3.2 describe how to implement the currencies in accordance with the rules set out in the *2014/15 National Tariff Payment System*. Subsection 3.3 describes risk sharing provisions that providers and commissioners can implement to manage financial risk while the system adapts to a new payment mechanism. These are consistent with the rules in the national tariff – please note these require disclosure of agreements to depart from the currencies, (see Rules 4 and 10 in Subsection 7.4 of the *2014/15 National Tariff Payment System*).

3.1 Developing an active caseload

In developing the contract for 2014/15 an activity plan will need to be agreed based on active caseload. The active caseload is the number of service users by cluster that are in receipt of treatment or assessment. To assess active caseload, data should first be cleansed to ensure that only service users currently in receipt of assessment or treatment are included. The number of service users on the current active caseload can be determined by taking a snapshot of caseload analysed by cluster and initial assessment at a particular point, or by taking an average over a period. Either way, it is important that active caseload accurately reflects daily activity and that the process is agreed between commissioners and providers. The monthly reports from the HSCIC will include information on caseload. Where there are changes anticipated to the caseload by cluster in the coming year, whether through planned changes in service delivery or through demographic changes, these can be agreed between commissioners and providers to determine an expected caseload which can be monitored on a quarterly basis, broken down by initial assessment and cluster treatment.

3.2 Development of prices

This subsection sets out a method for calculating prices for initial assessments and non-admitted cluster activity (see 3.2.1) and admitted cluster activity (see 3.2.2) based on the total contract value for relevant services. This provides the information to generate a complete finance and activity schedule (see 3.2.3).

The first stage of the process is to separate out the value of admitted care from the total contract value for relevant services. The mechanism for doing this will depend on local circumstances and the granularity of the existing contractual information. The most basic method is to apportion the overall contract value to admitted care based on the proportion of reference costs that admitted care represents. The proportion of admitted and non-admitted care within each Clinical Commissioning Group (CCG) contract will need to be taken into account.

This subsection will be illustrated with a hypothetical trust which receives a total of £127 million for delivering services covered by the mental health currencies. Of the total, £85 million has been apportioned to admitted care and £42 million to non-admitted care.

3.2.1 Initial assessment and cluster activity for non-admitted care

The care provided for each cluster and for initial assessments will have different resource requirements in any given period. This is captured by establishing the Relative Resource Intensity (RRI) of each cluster. The RRI is a weighting that can be used to calculate prices which reflect this differing resource requirement. Annex C shows a methodology for calculating this using patient level costing information. For those organisations that have a Patient-level Information and Costing System (PLICS), their system will also be able to calculate the RRI. For those not using these methodologies, reference costs per day can be used as a proxy for RRI in the interim. The simplest way to calculate a reference cost per day for assessment is to take the reference cost and divide it by the average number of days per assessment, although other methodologies can be used, where the information is available.

The next stage of the process to establish non-admitted cluster activity prices is to allocate the total contract value to initial assessments and each cluster using the RRI. Table 2 below gives an example of how this can be done.

Table 2: Apportionment of contract value for non-admitted care to clusters and initial assessments based on weighted treatment days

Cluster Number	***Relative Resource Intensity*** (From Patient level data or using ref cost per day as proxy) ***(A)***	***Total Annual Expected Days*** ***(B)*** ***Days***	***Weighted Treatment Days*** *(A * B)* ***(C)*** ***Weighted days***	***Overall Contract value per cluster*** *(Contract value apportioned by weighted treatment days)* ***(D)*** **£**
0	1.65	31,500	51,975	£481,285
1	1.00	15,500	15,500	£143,529
2	1.15	79,000	90,850	£841,265
3	1.23	158,000	194,340	£1,799,575
4	1.80	158,000	284,400	£2,633,524
5	2.35	47,500	111,625	£1,033,640
6 – 21*	3.28	1,092,000	3,581,760	£33,166,846
Initial Assessment	2.61	79,075	206,386	£1,911,118
Contract Value		**1,660,575**	**4,536,836**	**£42,010,781**

Price setting for non-admitted cluster activity

Once the contract value per cluster has been calculated, the price per cluster day can be attained by dividing the contract value by the number of cluster days as shown in Table 3 below.

Table 3: Calculation of price per cluster day based on the apportionment in Table 2

Cluster Number	***Total Expected Days for year*** ***(B)*** ***Days***	***Overall Contract value per cluster*** *(Contract value apportioned by weighted treatment days)* ***(D)*** **£**	***Price per cluster day*** *(D / B)* ***(E)*** **£**
0	31,500	£481,285	£15.28
1	15,500	£143,529	£9.26
2	79,000	£841,265	£10.65
3	158,000	£1,799,575	£11.39
4	158,000	£2,633,524	£16.67
5	47,500	£1,033,640	£21.76
6 – 21*	1,092,000	£33,166,846	£30.37
Contract Value (excluding initial assessments)	**1,581,500**	**£40,099,663**	

* Please note that clusters 6 to 21 should be calculated individually and that the tables above are for illustration purposes only.

This calculation can be performed for each CCG level or, where a single price per provider has been agreed, for each provider. There is no requirement to deliver a single provider price in 2014/15.

Price setting for initial assessments

The price for initial assessments is calculated by taking the overall contract value for initial assessments as calculated in Table 2 above and dividing by the total number of completed assessments being contracted for, as shown below in Table 4.

Table 4: Calculation of price per assessment based on apportionment in Table 2

	Total number of completed assessments ***(B)*** **#**	***Overall Contract value for assessment*** *(Contract value apportioned by weighted treatment days)* ***(D)*** **£**	***Price per assessment*** *(D / B)* ***(E)*** **£**
Initial Assessments	5,750	£1,911,118	£332

The price per initial assessment is for an assessment irrespective of whether or not the service user is accepted for treatment. The number of initial assessments is calculated using the average of the number of contacts a service user has prior to clustering. Initial assessment should be recorded as concluded at the end of the day of the appointment on which the cluster allocation is assigned. The time taken for most initial assessment is expected to be two contacts for non-admitted care or on admission for in-patients. This will vary by organisation. Some providers have developed an initial assessment price for each cluster. However, for 2014/15, as a minimum, organisations should calculate a single average price across all initial assessments.

During the coming year further development of the initial assessment methodology will look to further explore options to best capture the resource utilised in initial assessment and treatment.

It is important to stress the difference between initial assessment for the purposes of clustering and the on-going clinical assessment that takes place throughout treatment. This methodology will enable transparency nationally in determining the resources utilised before the cluster is assigned, irrespective of where the individual goes on to receive treatment. Clinical assessment following cluster allocation is part of the cluster price.

Use of price per day or price per cluster review period

In 2014/15, organisations can chose whether to contract on the basis of cluster day, maximum cluster period or average cluster period. To translate cluster day to cluster period the cluster day price should be multiplied by appropriate period days.

Use of cluster days represents the simplest process to set up cost and volume contracts. However, if this methodology is used, it will be essential to ensure that compliance with national maximum review periods is built into the contract as a quality standard. For comparative benchmarking purposes, national price collections will be on a per day, maximum cluster period, and actual cluster period basis. A cluster period should be recorded as closed at the end of the day in which the cluster review took place and not when it is entered on the system.

3.2.2 Calculation of inpatient indicative price per day

Having calculated prices for non-admitted care and initial assessments, this subsection illustrates how prices can be developed for inpatient care. This approach aims to identify the total resource of the inpatient services by commissioner. This should be analysed by bed type, as some are more expensive than others. The most commonly used bed types are Assessment & Treatment, PICU[9], Rehabilitation and Older People's, as set out in reference cost guidance, but some organisations may analyse in-patient settings at a more granular level.

Where organisations have an inpatient price for bed type, the admitted cluster price will be derived using the following calculation:

$$\frac{\text{(bed type A price x activity A) + (bed type b price x activity b) + (etc.)…}}{\text{Total cluster inpatient activity}}$$

Where inpatient prices are not available a proxy for this can be derived using reference costs as a relative resource intensity to derive weighted activity (see following tables).

[9] Psychiatric Intensive Care Unit

Table 5: Calculation of weighted activity for Assessment and Treatment

Cluster	Activity (A)	Assessment & Treatment Reference Cost (B)	Weighted Activity *(A x B)* (C)
0	4,894	£300	1,468,193
1	2,557	£300	767,154
2	3,651	£300	1,095,445
3	6,414	£300	1,924,154
4	16,289	£300	4,886,757
5	6,744	£300	2,023,325
6	3,454	£300	1,036,170
7 – 21*	85,151	£300	25,545,190
	129,155		

Table 6: Calculation of weighted activity for Rehabilitation

Cluster	Activity (A)	Rehab Reference Cost (B)	Weighted Activity *(A x B)* (C)
0	683	£275	187,895
1	683	£275	187,895
2	307	£275	84,425
3	683	£275	187,895
4	562	£275	154,550
5	782	£275	215,035
6	157	£275	43,175
7 – 21*	40,342	£275	11,094,131
	44,200		

Table 7: Calculation of weighted activity for Psychiatric Intensive Care Unit

Cluster	Activity (A)	PICU Reference Cost (B)	Weighted Activity *(A x B)* (C)
0	726	£650	471,729
1	209	£650	135,838
2	42	£650	27,168
3	228	£650	148,187
4	312	£650	202,522
5	49	£650	32,107
6	50	£650	32,500
7 – 21*	11,972	£650	7,781,904
	13,588		

Table 8: Calculation of weighted activity for Older People's

Cluster	Activity (A)	OPS Reference Cost (B)	Weighted Activity *(A x B)* (C)
0	1,929	£400	771,550
1	455	£400	182,055
2	1,577	£400	630,994
3	2,682	£400	1,072,777
4	6,458	£400	2,583,162
5	1,302	£400	520,784
6	3,007	£400	1,202,800
7 – 21*	35,063	£400	14,025,086
	52,473		

The weighted activity can then be used to derive admitted cluster price as shown in Table 9.

Table 9: Calculation of in-patient price per cluster by apportioning contract value based on weighted activity

Cluster	Total Weighted Activity *(Total of column C above across all bed types per cluster)* **(D)**	Contract Allocation (Apportionment of contract value by proportion of weighted activity in column D) **(E)**	Total Activity (Total of column A above across all bed types per cluster) **(F)**	Price per Cluster *(E / F)* **(G)**
0	2,899,367	£3,053,003	8,232	£370.88
1	1,272,942	£1,340,394	3,905	£343.29
2	1,838,032	£1,935,428	5,578	£346.99
3	3,333,012	£3,509,627	10,007	£350.72
4	7,826,992	£8,241,740	23,621	£348.92
5	2,791,251	£2,939,158	8,878	£331.07
6	2,314,645	£2,437,297	6,668	£365.53
7 – 21*	58,446,311	£61,543,352	172,528	£356.72
	80,722,551	**£85,000,000**	**239,415**	**£355.03**

*Please note that clusters 7 to 21 should be calculated individually and that the tables above are for illustration purposes only.

3.2.3 Finance and activity schedule

The finance and activity schedule presents a separate price for assessment, non-admitted treatment and admitted treatment, as well as an integrated cluster price. The integrated cluster price is calculated by the following calculation:

(Non-admitted price x non-admitted activity) + (admitted price x admitted activity) / Total activity

The contract can either analyse initial assessments according to which cluster they are subsequently assigned to, or simply show total activity for initial assessments with an average price. An example of a finance and activity schedule is shown below.

Table 10: Example finance and activity schedule

Cluster	**Initial Assessment** (per completed assessment)		**Non Admitted Treatment** (per day)		**Admitted Treatment** (per day)		**Total Non admitted & Admitted activity** *(b + d)*	**Integrated Cluster Price** *((a x b) + (c x d))/Y* (per day)	**Grand Total** *(W x X) + (Y x Z)*
	Activity	£	Activity	£	Activity	£	Activity	£	£
	(W)	**(X)**	**(a)**	**(b)**	**(c)**	**(d)**	**(Y)**	**(Z)**	
0			31,500	£15.28	8,232	£370.88	39,732	£88.96	£3,534,404
1			15,500	£9.26	3,905	£343.29	19,405	£76.48	£1,484,077
2			79,000	£10.65	5,578	£346.99	84,578	£32.83	£2,776,860
3 – 21***			***	***	***	***	***	***	£117,363,940
Assessed not clustered									
Total Initial Assessment	5750	£322							£1,851,500
Total									£127,010,781

*** Please note that clusters 3 to 21 should be calculated individually and that the table above is for illustration purposes only.

The activity schedule should reflect expected activity and the overall contract value should reconcile to existing CCG contract values. Where there are other arrangements for payment already in existence outside of block contracts, the total contract value for this purpose will be on out-turn contract value.

Providers and commissioners can agree locally how to account for changes in activity associated with service re-design or demand changes. This could be agreed within the existing contract envelope or as a variation.

It is recommended that quarterly analysis be provided to commissioners setting out actual performance against plan and used a basis to inform development of the contract and service improvement.

3.3 Managing financial risk

In line with rules set out in the *2014/15 National Tariff Payment System*, commissioners and providers can depart from using national currencies. This may involve adopting one of the following options:

- to remain on block contracts, where there is no monetary value attached to changes in activity;
- move to contracts where funding varies with activity; or
- agree to a hybrid approach where financial risk is introduced but managed within agreed limits.

This subsection sets out how financial risk can be managed where providers and commissioners move away from block contracts.

Providers and commissioners must fully understand the impact of delivering patient care when introducing financial risk into contracts. This is a requirement under the principles of local prices, variations and modifications which must be followed in accordance with Rule 1 in Section 7.4 of the *2014/15 National Tariff Payment System.*

Where there is an agreement to move to cost and volume contracts, it is recommended that commissioners obtain assurance over data quality, including the quality, accuracy and robustness of activity and local price data.

Where providers and commissioners agree to move towards a cost and volume contract but wish to pro-actively manage the financial risk of activity fluctuations, there are two main approaches recommended.

The first approach is to set a range for activity changes within which there is no associated resource implication for commissioners and provider (known as a collar). Any activity changes within this range are absorbed in year, but can be reflected by agreement in future years' contracts. This is the simplest approach to managing financial risk. The threshold at which activity triggers payment would be left to local agreement between providers and commissioners, but is suggested to be set at a level of at least +/-5% in the first year to reflect the developmental nature of this approach, and the continuing underlying issues of data quality. Ideally such arrangements should be employed at cluster level, but local arrangements may determine that these are aggregated at a total contract level. Any activity changes beyond this threshold would attract funding at 100% of cluster day price.

The second approach is to agree a level of variation within which the activity would attract funding adjustments but which would be capped at the agreed outer limits (cap). If this approach is used then it is suggested that the cap be set at a low level (+/- 2% for example). It should be noted that some volatility will exist as cluster based contracts are embedded, which could mean some variation in activity is driven by data quality rather than demand. This will have to be addressed by providers and commissioners in a memorandum of understanding.

It is strongly recommended that organisations have a memorandum of understanding in place to manage financial risk for both parties. It is recommended that this includes:

- management of data quality, and arrangements to cleanse caseload activity through the year. This will ensure that changes in caseload arising from data quality improvement rather than changes in demand do not incur financial implications;
- arrangements for reflecting service improvement/transformation in the contract; and
- arrangements for re-basing the contract through the year where this is appropriate.

The risk sharing arrangements described here are consistent with rules set out in the *2014/15 National Tariff Payment System*, subject to the mandatory disclosure requirements (see Section 7.4 of the *2014/15 National Tariff Payment System*).

3.4 Choice and non-contract activity

Moving to an active caseload-based payment approach for 2014/15 will support the implementation of the right to have a choice of mental health provider which is planned to be introduced in April 2014. The exact scope and process for this is still to be determined.

For contracted activity, any variation from contract arising from choice will be picked up from routine contract monitoring. Further work will be undertaken to monitor and assess the materiality and impact of choice to inform the development of the contract going forward. For non-contracted activity, it is suggested that providers will charge a separate price for assessment, non-admitted and admitted care, and prices set on a daily basis to reflect the temporary nature of much non-contractual activity.

It is recommended that commissioners monitor non-contracted activity with their providers, and where appropriate enter into contractual arrangements to reflect changes in demand due to choice.

The longer term duration of some mental illness means that a service user may present for urgent treatment from a provider in another part of the country. For instance, a service user that is being treated by one mental health provider, but then has an incidence of mental illness elsewhere in the country that leads to their being admitted (for example under section 136 of the Mental Health Act), or needing other urgent treatment. This will need to be paid for separately by the commissioner located in the area where the service user normally resides.

3.5 Incentivising quality improvement

It is important that in agreeing and monitoring the contract, the quality metrics described in the following section are used to incentivise improvements in care. This can be done by agreeing targets which attract additional payment or for which penalties may apply. Commissioning for Quality and Innovation (CQUIN) funding could be used as a basis for setting and delivering improvement plans.

From April 2014, working with the HSCIC, we intend to make available benchmarking information relating to a range of indicators and outcome measures. Further information will be provided in 2014. The intention is to develop national standards and requirements that will be applied in future years as we learn from the benchmarking information.

3.6 Application to all providers of NHS services

The cluster currencies should apply regardless of where and who delivers the care, so will be applicable to all providers of NHS services. We recognise that the independent sector often has a particular focus on some of the more specialist mental health care, much of which is not in scope of the current clusters.

Where there are multiple providers delivering part of the care for a service user it is important that all relevant data is transferred from one provider to another. This of course includes cluster information. This principle applies equally to NHS organisations and to independent and third sector providers.

3.7 Integrated care

Many services are commissioned using both health and social care funds. It is for commissioners to make a judgement on whether such provision is considered health care, and hence part of health funding, or social care, and hence outside the scope of the national tariff. However, in doing so they must follow national guidance in assessing whether an individual has a primary health need or otherwise[10].

There are a number of differing funding arrangements currently in place aimed at supporting integration of health and social care for people with mental health problems. These can include formal section 75 partnership agreements for provision and commissioning, and a range of informal agreements aimed at encouraging partnership, and the provision of seamless integrated care and treatment.

Although the initial phases of care cluster development are focussed upon the establishment of local prices for the health funded elements of care, it is envisaged that commissioners and providers will consider the impact that the social care element has on the overall care package content and the resources and outcomes delivered as a result. The *2014/15 National Tariff Payment System* rules (Section 7.4) enable providers and commissioners to move away from the care clusters, in particular where this supports the integration of mental health services and social care.

[10] https://www.wp.dh.gov.uk/publications/files/2012/11/National-Framework-for-NHS-CHC-NHS-FNC-Nov-2012.pdf

Local payment approaches for mental health also need to support the personalisation agenda, which now relates to both health and social care. The best way of achieving this is a full discussion with local authority partners, in order that the social care contribution to the cost of treating service users in particular clusters can be understood, and that care packages can be formulated that are tailored to an individual's requirements.

Commissioners need to be aware that the varied contributions of different local authorities and the voluntary sector can make it hard to make quick comparisons between providers about the costs and scope of services.

3.8 Casemix

There are groups of individuals who may add significant additional costs to the average service user within a cluster, for example service users with communication difficulties may have a requirement for a translator or a signer. It may be appropriate to agree additional top-up payments or alternative funding arrangements, in addition to the core cluster payment, to ensure that the cost of these additional services is recognised.

3.9 Personal health budgets

The Government has made clear that individual choice and control in public services is a priority. Personal health budgets, which were piloted in the NHS from 2009 to 2012, are one of the ways of achieving this, enabling individuals to better manage their physical and mental health.

On 30 November 2012, Ministers announced that based on the positive evidence in the independent evaluation[11] of the pilot programme, the use of personal health budgets would be rolled out more widely across the NHS. The evaluation showed that the groups who benefited most from personal health budgets during the pilot were those with higher levels of need, including individuals in receipt of NHS Continuing Healthcare and those with mental health needs. NHS England is supporting a set of demonstrator sites who will lead the way in showing how personal health budgets can be implemented in practice.

[11] How to set budgets: early learning (p.21-24) www.personalhealthbudgets.england.nhs.uk

A practical 'Toolkit'[12] is available online to support implementation and will evolve as more is learned about personal health budgets during the early stages of rollout, including the work of mental health demonstrator sites. This includes an example of how one CCG has been using its payment approach to support the implementation of personal health budgets in mental health services, and free up resources. This work suggests that it will be important for NHS commissioners and providers to work closely together with people who use services.

Goods and services purchased by personal health budgets have so far generally replaced community or mental health services. The mental health currencies and cluster prices are therefore expected to be helpful in setting personal health budgets and identifying how much money should come out of existing contracts.

12 www.personalhealthbudgets.england.nhs.uk/_library/Resources/Personalhealthbudgets/Toolkit/HowPHBwork/SettingBudget/Phb_guide_HowToSetBudgets.pdf

4 How to measure quality and outcomes

Quality and outcome measures are particularly important for mental health, because of the longer term nature of an individual's interaction with providers and the need to understand whether people are getting good quality care, and recovering, and for commissioners to be able to compare one provider with another.

In November 2011 the DH published a report setting out a number of quality indicators that could be used to measure the service provided by mental health trusts. Work continued during 2012 and the National Quality and Outcomes group is developing a range of quality indicators and outcome measures which are being tested during 2013/14. These are an integral part of the currency model to enable a better understanding of what a service is achieving. This work has resulted in:

- A set of 10 quality indicators using data collected via MHMDS and a number of additional indicators for potential national and local use.
- A recommended Clinician Rated Outcome Measure (CROM) based on HoNOS[13].
- Progress being made on the development of a Patient Reported Outcome Measure (PROM), with testing of the Warwick Edinburgh Mental Well Being Scale (WEMWBS) receiving positive feedback from service users[14], Further testing of the short version of WEMWBS is taking place.
- Further progress on developing Patient Rated Experience Measures (PREMs) including the possible use of the "friends and family test"; and potential use of CQC community survey.
- Completion of the IMHSEC website which provides guidance on the content of care packages for each of the clusters.

[13] Health of the Nation Outcome Scales © Royal College of Psychiatrists 1996

[14] Outcome measurement in mental health: the views of service users. Submitted to the Mental Health Research Network (May 2010) www.mhrn.info/pages/reports.html

Work is ongoing to strengthen the quality and outcomes framework and its component parts.

4.1 Quality indicators

For each care cluster quality indicators must be agreed between providers and commissioners. HSCIC will produce routine reports on these from April 2014. Quality indicators agreed must be monitored on a quarterly basis by both providers and commissioners. The table below gives a summary of the recommended indicators and a number of additional clustering indicators on which further work will be undertaken.

Table 11: Quality indicators

Recommended Indicators		Additional Indicators	
R1	The proportion of users in each cluster who are on CPA	C4	Distribution of Actual Cluster Review Periods
R2	The proportion of users on CPA who have had a review within the last 12 months	C5	Distribution of Actual Cluster Episode Period Duration
R3	The completeness of ethnicity recording	C6	Distribution of Actual MH Cluster Review Period Duration
R4	The accommodation status of all users (as measured by an indicator of settled status)	C7	Re-referral Rate (to any in scope services)
R5	The intensity of care (bed days as a proportion of care days)	C8	Proportion of Reviews (CPA) with a corresponding Clustering Review
R6	The proportion of users with a crisis plan in place, limited to those on Care Programme Approach (CPA).	C9	Indicator of accommodation problems
R7	The proportion of users who have a valid ICD10 diagnosis recorded	C10	Cluster Profile
C1	Proportion of in scope patients assigned to a cluster	C11	Step Up / Step Down / little change / discharges
C2	Proportion of initial cluster allocations adhering to red rules		
C3	Proportion of patients within Cluster Review Periods		

The recommended indicators will be reported nationally from MHMDS submissions in 2014/15. The additional indicators can be used locally to inform service improvement. Providers and commissioners may wish to assess how they could be used as part of a local payment.

Further information about the indicators can be found on the Care Pathways and Packages Project (CPPP) website, including information about how to use them for monitoring purposes[15].

4.2 Use of Clinician Rated Outcome Measures (CROMs)

A clear link between the care provided and the clinical outcomes that are achieved has always been an essential part of the development of the payment system for mental health.

HoNOS is a universally recognised CROM which is already mandated for use across the NHS and collected as part of the MHCT. Using the individual items in HoNOS a four factor model has been developed which can be used to understand overall change and specific change to:

- Personal Well-being
- Social Well-being
- Emotional Well-being
- Severe Disturbance

A user guide that provides further instructions on how this can be calculated locally is available on the CPPP website[16].

This CROM has been tested on national data during autumn 2013. The HSCIC will report CROM information from April 2014. Further information will be provided with regards regional/national benchmarking during 2014.

Following last year's guidance, providers and commissioners need to be assured that the MHCT) data (from which HoNOS can be derived) submitted is accurate, complete and reflects patient need.

[15] www.cppconsortium.nhs.uk/qpi.php

[16] www.cppconsortium.nhs.uk/docs.php

4.3 Use of Patient Reported Outcome Measures (PROMs)

With no nationally agreed PROM available, testing of the Short Warwick & Edinburgh Well Being Scale (SWEMWBS) is taking place through 2013 and 2014. The work is being led by the national Quality & Outcome (Q&O) sub group, supported by patient groups. Progress will be reported to inform guidance for 2015/16.

However, it is recommended that commissioners and providers support all patients in all clusters to complete a PROM and where possible this should be aligned to recording the MHCT cluster. Regular joint review of the data relating to this should be undertaken.

4.4 Patient experience

As with PROMs there is no universally or agreed way to assess and report patient experience, but it is recommended that commissioners and providers use some method to assess this. A pilot of the use of the friends and family test (*How likely are you to recommend our services to friends and family if they needed similar care or treatment?)* is taking place. This includes looking at the link to cluster. Further information on how to apply the Friends and Family test can be found on the NHSE website[17].

As with a PROM, where possible a PREM can be collected in line with use of the MHCT, on completion of initial assessment, at routine review, significant change in presenting needs, and at discharge. It is recommended that regular review of the data is undertaken by commissioners and providers.

The use of the Care Quality Commission (CQC) service user survey is also being explored as the survey is being reviewed during 2013.

4.5 Supporting the quality and outcomes work further in 2014/15

Following the development of the quality indicators and the CROM in 13/14, the HSCIC will begin to regularly report on these using MHMDS data. This will include the analysis and benchmarking of the 10 indicators and the 4 factor model by cluster to allow local performance trajectories to be jointly agreed.

[17] www.england.nhs.uk/wp-content/uploads/2013/07/fft-imp-guid.pdf

It is anticipated that the HSCIC will produce reports from April 2014 that will provide the following:

- Monthly analysis of 10 indicators by cluster by CCG,
- Analysis of CROM 4 factor model by cluster by CCG, region, and nationally

This information will be available to commissioners and providers and should form the basis for review between commissioner and provider on a regular basis throughout 14/15.

The clusters are intended to support and encourage the use of clinical pathways, identified through further assessment after cluster allocation. This is also expected to result in the use of more specific clinical and patient outcome measures in addition to the generic CROM and PROM recommended above, which commissioners may also wish to monitor.

Clearly defined care packages linked to clusters will offer patients greater understanding of what they can expect from services and could be used to collaboratively agree on treatment choice. Cluster specific packages should allow providers and commissioners the opportunity to understand what interventions are offered and outcomes achieved on a cluster basis. MHMDS will begin to collect interventions by cluster from April 2014, and this will further support the development of care packages and a patient's pathway in mental health care.

It is recommended that each pathway clearly describe points when the CROM, PROM and PREM could be completed and the resulting information combined with quality indicator analysis on a cluster basis should offer rich data about the effectiveness of the package of care.

5 Data

In understanding what is happening to a service user during their care with a mental health provider, and what should be paid for that care as they move towards discharge to primary care, capturing and using good quality data is essential.

5.1 MHMDS data

The Mental Health Minimum Data Set (MHMDS) is a rich data set and it has been a mandatory requirement for all statutory NHS providers to submit data to MHMDS since 2003. Version 4 was mandated from April 2012[18]. The requirement to submit data now covers all providers of NHS mental health services, not just NHS organisations. However, not all providers currently submit complete data records to the HSCIC. Diagnosis is an area of MHMDS where there is currently great variability between providers in the percentage of records that have one recorded. It is important that wherever possible, diagnosis is captured. The HSCIC started to publish monthly reports in September 2013 and this will start to highlight where providers are not submitting completed records. Further details of how to access the data are set out later in this section.

It is of course not just submitting data that is important, but also the quality and accuracy of the information which is submitted. For the payment system, nowhere is this more important than in undertaking the clinical assessment of a service user and determining and recording which cluster each service user is assigned to. The Mental health clustering tool booklet sets out how this should be done. Currently not all clinicians are recording every item in Mental health clustering tool at each review. It is very important that they do so, as this data will be used when looking at whether particular outcomes have been achieved. Detailed information about quality and outcomes is set out in Section 4. The HSCIC produce regular data consistency reports, known as Data Quality Measures reports[19], and these can be used to support improvements in MHMDS data quality.

[18] From April 2014 the dataset will be known as the Mental Health and Learning Disabilities Dataset.

[19] www.hscic.gov.uk/CHttpHandler.ashx?id=10630&p=0

Intervention codes will be introduced with the next version of the MHMDS which is planned to be mandated from 1 April 2014. The codes allow the types of interventions undertaken to be captured. A requirement may exist to map existing local intervention codes to those presented in the data set. As a consequence of the scope expansion of the data set to include learning disability services it will be renamed the Mental Health and Learning Disabilities Data Set (MHLDDS) from that date. Further detail will be available in the MHLDDS User Guide.

5.2 Algorithm

An algorithm has been developed to provide an additional tool to support clinicians with their clustering decisions following the initial assessment. The algorithm uses the rules in the clustering booklet to help identify the most likely clusters for every service user. Its use is primarily as a decision support tool, to indicate how well the MCHT ratings fit with the clinician's choice of cluster rather than to automate a clinical process. At the organisational level, commissioners may wish to apply the algorithms retrospectively to compare the decisions made by different providers at the first assessment. At the provider level the tool can look at the variation in clustering decisions made by different clinicians or service lines. It is not appropriate to use the algorithm to question variance at the individual patient level as this requires a clinical judgement and it can be appropriate for the clinician to override the algorithm.

The algorithm is published with accompanying guidance as Annex D to this document. Further road-testing is taking place so that any further refinements can be identified before we consider incorporating the tool into national IT systems. It is recognised that this may make it difficult for some organisations to fully use and test the tool. To support these organisations, there is an online version available on the Care Pathways & Packages Project (CPPP) website.[20]

[20] www.cppconsortium.nhs.uk/algorithm/

5.3 Costing data

The quality of costing data is also very important. We are currently undertaking some work to look at how costing might be improved in mental health. In the meantime use of the Healthcare Financial Management Association (HFMA) mental health clinical costing standards[21] is recommended, as they reflect current best practice.

The Audit Commission commissioned Capita to work with NHS mental health trusts and their commissioners on the assurance of both costing and clustering data. Their final report can be found on the Audit Commission website[22] and identifies a number of actions that organisations can undertake to improve the quality of their data. Capita will be working with more mental health providers and commissioners in 2013 and 2014.

5.4 Accessing MHMDS

Record level MHMDS extracts are available for commissioners to download from the Open Exeter Bureau Service Portal (BSP). Extracts include MHMDS records for those service users for whom each organisation is the commissioner. Some basic reports on clusters are available with the extracts via the BSP. Commissioners' record level MHMDS extract is anonymised and so does not include NHS number – however, each record includes a Spell ID which is common to the extracts received by providers and can support investigation of individual records.

Providers make a primary submission soon after the end of the period (month) and have the option of replacing this data with a 'refresh' submission at the next deadline. Patient records are filtered for each commissioner extract by the 'Org Code (code of commissioner)' entered by the provider in each patient record.

[21] www.hfma.org.uk/NR/rdonlyres/1CF429F5-BC1C-4D79-8648-BEF384B8EA4D/0/MHstandards2012topresscrop2.pdf

[22] www.audit-commission.gov.uk/wp-content/uploads/2007/07/PbR-mental-health-July-2013.pdf

5.4.1 MHMDS for Commissioners

Limited historic extracts are stored on the system and commissioners are encouraged to download their extracts promptly. A specification for the commissioner extracts can be found on the HSCIC website here: www.hscic.gov.uk/mhmds/spec. If you have not already registered for access to MHMDS on the Bureau Service Portal you need to complete an application. If your organisation already has access to Open Exeter you can omit steps 1 and 2 below.

1. Go to www.hscic.gov.uk/mhmds/submissiontimetable to register and check that the correct name is given for the Caldicott Guardian of your organisation.

2. If the name is incorrect or missing, download and complete the www.connectingforhealth.nhs.uk/systemsandservices/ssd/prodserv/caldicottcert.pdf form to register the correct Caldicott Guardian and send this back to the address on the form.

3. If the name of your organisation's Caldicott Guardian is correct then just complete the following form www.connectingforhealth.nhs.uk/systemsandservices/ssd/prodserv/bspducform.doc to request access to Open Exeter for MHMDS and send it to the address on the form (Note: the addresses for the two forms are different).

Commissioners are advised to discuss with the organisations from whom they commission services which code should be used. For further information about this important issue, please see the HSCIC website.

Please note that once issued, accounts must be activated within a short period of time. Instructions on how to get a user login are on the IC website and in the MHMDS User Guidance, www.hscic.gov/mhmds/spec For further help please contact the Information Centre via exeter.helpdesk@nhs.net.

5.4.2 MHMDS for providers

Providers who submit MHMDS have access to an extract in the same format as the commissioners receive (except it includes patient identifiable items i.e. it is not anonymised) as well as a range of validation reports at the point of submission. Providers are encouraged to review all these reports whilst there is still time to re-submit, to ensure that their submission accurately reflects caseload and activity. From April 2013 MHMDS became a monthly submission.

It is important that providers discuss with their commissioners what Org Code (code of commissioner) should be used. Please see the HSCIC website for further details: www.hscic.gov.uk/article/2196/Mental-Health-Information-Update---September-2012_

In order for accurate data to flow to commissioners providers must ensure they are meeting the submission requirements described in the MHMDS User Guidance (http://www.hscic.gov.uk/mhmds/spec. It is important that they submit full, accurate and timely data in Tables 26 and 27 of the submission database. Providers need to ensure that all Episode End Dates (including Cluster episode End Dates) are submitted when required (see the HSCIC website).

Please note that once issued, accounts must be activated within a short period of time. Instructions on how to get a user login are on the HSCIC website and in the MHMDS User Guidance. (See Section 9 of the guidance at: www.hscic.gov.uk/mhmds/spec). For further help please contact the Information Centre via: exeter.helpdesk@nhs.net.

5.5 MHMDS publications

Monthly statistical releases are published by the Health and Social Care Information Centre, using monthly MHMDS. This includes a data file with 54 measures at provider/CCG pairing to show caseload and activity. This replaces the Routine Quarterly MHMDS Reports and includes a much wider range of information. Further information is available here: www.hscic.gov.uk/mhmdsmonthly

Annex A: Mental health services falling outside the care cluster currency model

The table below lists the service areas not covered by the clusters. It includes all areas that are commissioned directly by NHS England. More detailed descriptions of the services can be found on the NHS England website.[1]

Specialist Commissioned Services
Child and adolescent mental health services (CAMHS) Pilot work is taking place with CAMHS providers over the next eighteen months to develop a suitable approach for PbR for CAMHS.
Forensic and secure services Adult Secure Mental Health Services will include high, medium and low secure inpatient care and associated non-admitted care including outreach when delivered as part of a provider network.
Perinatal psychiatric services (mother and baby units) Specialist Perinatal Mental Health Services are provided by Specialist Mother and baby Units. Services will include inpatients and associated non-admitted care including outreach provided by these units when delivered as part of a provider network. This applies to provision in adults and young people.
Tertiary eating disorders Adult Specialist Eating Disorder Services will include inpatients and bespoke packages of care for intensive day care (as an alternative to admission) services provided by Specialist Adult Eating Disorder Centres. The service will include associated non-admitted care including outreach when delivered as part of a provider network.
Gender dysmorphia Gender Identity Disorder Services will include specialist assessment, non-surgical care packages, transgender surgery and associated after care provided by Specialist Gender Identity Disorder Centres. This applies to provision in adults and children
Specialist mental health services for deaf people Specialist Mental Health Services for Deaf Adults will include inpatient and non-admitted care including assessment and treatment services for deaf people provided by Specialist Centres. In addition, the service will include advice to general mental health services on the management and treatment of the deaf person's mental illness.

[1] www.england.nhs.uk/resources/spec-comm-resources/npc-crg/group-c/

Severe obsessive compulsive disorder and body dysmorphic services Include services provided by Highly Specialist Severe Obsessive Compulsive Disorder and Body Dysmorphic Disorder centres. This applies to provision in adults and adolescents.
Specialist Services for Severe Personality Disorder in Adults Specialist Services for Severe Personality Disorder in Adults will include inpatients and bespoke packages of care for intensive day care services (as an alternative to admission) provided by Specialist Centres. In addition, the service will include associated non-admitted care including out-reach when delivered as part of a provider network.

In addition there are a number of other services are not currently covered by the care cluster currency model.

Other services falling outside the mental health cluster currency model
Discrete IAPT Services
Specialised addiction services[2]
Specialist Psychological Therapies – admitted patients and specialised out-patients[3]
Learning disability services for non-mental health needs
Acquired brain injury
Complex and/or treatment resistant disorders in tertiary settings
Specialist services for autism and Asperger's
Liaison psychiatry
Mental health services under a GP contract

Locally, there may be other specialised non-standard services that both providers and commissioners agree fall outside of those included in the clusters.

[2] Addiction services are now being commissioned by Local Authorities. Substance misuse may be a complicating factor for a mental health problem and this is covered in the clustering booklet (Annex 7C of the consultation notice).

[3] Specialist Psychological Therapies are those therapies that are delivered, usually over a longer duration, by expert clinicians, qualified in particular therapeutic modalities. Patients who require specialist psychotherapies usually present with the most complex and severe mental health problems for whom primary care services and standard secondary mental health services, e.g. input via recovery teams, have either not been effective or have been unsuitable.

Annex B: A guide to mental health currency terminology

Introduction

Language and terms are being used interchangeably and possibly inconsistently to describe items and activity in relation to the mental health currencies.

This document aims to describe the preferred terminology that will be used nationally and locally.

Where possible, terms used here have been harmonised with the NHS Data Model and Data Dictionary in an attempt to avoid confusion from the use of the same or similar terms for the same or different things. This document is not intended to be a full mapping of or a specification against the NHS Data Dictionary or create new NHS Data Dictionary Terms but rather a cross-reference exercise to reduce ambiguity.

Term types

The types of terms used have been broken down into three types:

1	period duration descriptions
2	events
3	general terms

Click on the links in these tables to go straight to the detailed definitions.

The period duration descriptions are longitudinal and describe and quantify continuous periods of time in a patient's pathway. Events are discrete events that happen on the pathway that are generally "triggers" for the beginning or ending of different periods. General terms are definitions or specific information that can be derived from periods and events in a patient pathway.

For example, when looking at a hospital provider spell which is the continuous period that a patient will spend as an inpatient, this will have a start date which is triggered by an admission and ends with a discharge.

Summary of definitions

The key pathway periods defined in this document are:

Care spell
Adult Mental Health Care spell
Adult Mental Health Team Episode
Assessment Period
Hospital Provider Spell
Mental Health Care Cluster Assignment Period
Cluster Review Period (Actual, Average, Maximum and Agreed)
Cluster Episode Period Duration

The key events defined in this document are:

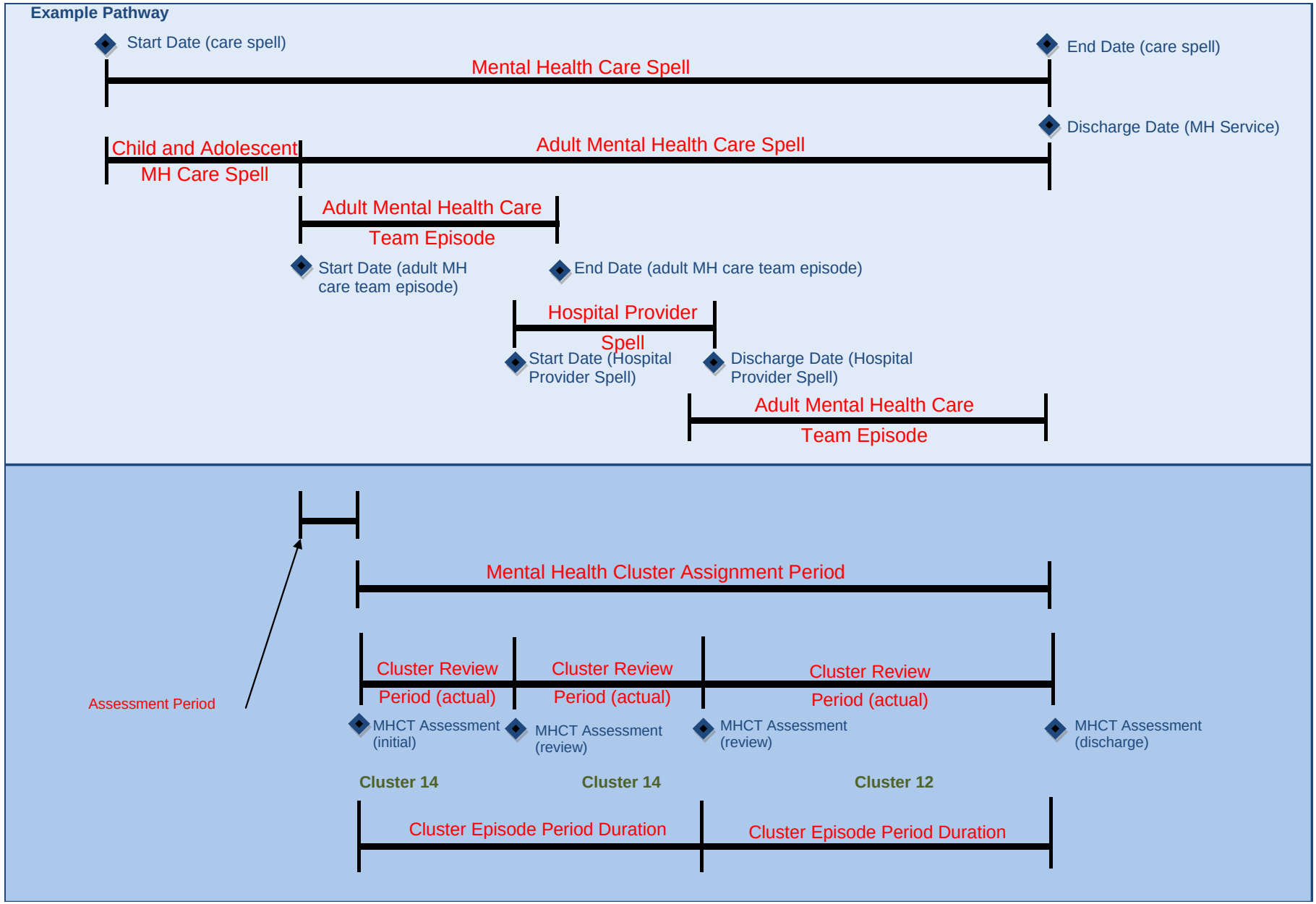
Start Date (Hospital Provider Spell)
Discharge Date (Hospital Provider Spell)
Start Date (Adult Mental Health Care Spell)
End Date (Adult Mental Health Care Spell)
Initial Mental Health Clustering Tool Assessment
Mental Health Clustering Tool Assessment Review
Mental Health Clustering Tool Assessment (Discharge)

The diagram over page shows an example service user pathway and how pathway periods and key events are applied through the pathway. The example may not be representative of pathways in different organisations but illustrates the hierarchy of terms.

General Terms

Relative Value Unit
Activity Plan
Active Caseload
Cluster Day
MHCT Casemix
Mental Health Care Cluster Super Class

The remainder of this document provides a more detailed description of these periods, events and general terms. A summary table of terms is included at the end of the glossary.


Example Pathway
Start Date (care spell)
End Date (care spell)
Mental Health Care Spell
Discharge Date (MH Service)
Child and Adolescent MH Care Spell
Adult Mental Health Care Spell
Adult Mental Health Care Team Episode
Start Date (adult MH care team episode)
End Date (adult MH care team episode)
Hospital Provider Spell
Start Date (Hospital Provider Spell)
Discharge Date (Hospital Provider Spell)
Adult Mental Health Care Team Episode
Mental Health Cluster Assignment Period
Assessment Period
Cluster Review Period (actual)
Cluster Review Period (actual)
Cluster Review Period (actual)
MHCT Assessment (initial)
MHCT Assessment (review)
MHCT Assessment (review)
MHCT Assessment (discharge)
Cluster 14
Cluster 14
Cluster 12
Cluster Episode Period Duration
Cluster Episode Period Duration

PERIODS

Term	Care Spell
Description	**This is an overarching and continuous period of time that a patient spends in the care of a single or multiple healthcare providers.**
Technical Detail – Data Dictionary Definition	A continuous period of care (including assessment for care) for a PERSON for an illness or condition involving health and possibly other agencies which has been nationally targeted and prioritised as requiring an organised and cohesive programme or regime of care. Overall management and coordination of the care will be the solely led responsibility of a specific Health Care Provider, or in the case of equally shared responsibility, the jointly led responsibility of two or more Health Care Providers. Actual treatment associated with the programme or regime of care may be delivered by the responsible Health Care Provider or by other Health Care Providers.
Data Dictionary Link	www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/c/care_spell_de.asp?shownav=1
Other Information	The NHS Data Dictionary definition of a Health Care Provider includes the following: • GP Practice • NHS Trust • Registered non-NHS Provider (e.g. Independent Provider, Independent Sector Healthcare Provider etc) • Unregistered non-NHS Provider • Primary Care Trust • Care Trust • Councils with social care responsibilities • Other agencies

Term	Child and Adolescent Mental Health Care Spell
Description	**This is an overarching and continuous period of time that a patient spends in the care of a single healthcare provider of child and adolescent mental health services.**
Technical Detail – Data Dictionary Definition	A Child and Adolescent Mental Health Care Spell is a continuous period of assessment or care for a child or adolescent PATIENT provided by a Health Care Provider's specialist Child and Adolescent Mental Health Services. The specialist mental health services are delivered by Child and Adolescent Mental Health CARE PROFESSIONALS, some of whom may receive referrals directly.
Data Dictionary Link	www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/c/child_and_adolescent_mental_health_care_spell_de.asp?shownav=1

Term	Adult Mental Health Care Spell
Description	**This is an overarching and continuous period of time that a patient spends in the care of a single healthcare provider of adult mental health (including elderly) services.**
Technical Detail – Data Dictionary Definition	A continuous period of care or assessment for an adult (including elderly) PATIENT provided by a Health Care Provider's specialist mental health services. This includes the care or assessment of adult and elderly PATIENTS with drug or alcohol dependence but excludes child and adolescent psychiatry PATIENTS and PATIENTS whose only mental disorder is a learning disability. The specialist mental health services are delivered by mental health professionals, some of whom may receive referrals directly. An Adult Mental Health Care Spell is initiated by a referral, or the temporary or permanent transfer of main responsibility for provision of mental health care for the PATIENT from another Health Care Provider, and ends with a DISCHARGE DATE (MENTAL HEALTH SERVICE). For referrals, the Adult Mental Health Care Spell commences with an initial assessment which will determine whether treatment or care by the Health Care Provider's specialist mental health services is appropriate. If not appropriate, then the Adult Mental Health Care Spell will end.
Data Dictionary Link	www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/a/adult_mental_health_care_spell_de.asp?shownav=1

Term	Hospital Provider Spell
Description	**A hospital provider spell is a continuous period of care, including periods of leave of up to 28 days, in an in-patient setting where a bed is occupied.**
Technical Detail – Data Dictionary Definition	The total continuous stay of a PATIENT using a Hospital Bed on premises controlled by a Health Care Provider during which medical care is the responsibility of one or more CONSULTANTS, or the PATIENT is receiving care under one or more Nursing Episodes or Midwife Episodes in a WARD. A Hospital Provider Spell starts with a Hospital Provider admission and ends with a Hospital Provider discharge. In some circumstances a PATIENT may take Home Leave, or Mental Health Leave Of Absence for a period of 28 days or less, or have a current period of Mental Health Absence Without Leave of 28 days or less, which does not interrupt the Hospital Provider Spell, Consultant Episode (Hospital Provider), Nursing Episode, Midwife Episode or Hospital Stay.
Data Dictionary	www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/h/hospital_provider_spell_de.asp?shownav=1

Link	

Term	Adult Mental Health Care Team Episode
Description	**The period of time a patient spends under the continuous care of a specialist Adult Mental Health Team within a healthcare provider. For the purposes of Mental Health Clustering, these teams may be in scope or out of scope for National MH PbR services.** **Adult Mental Health Care Team Episodes typically occur in community based teams.** **A patient can have multiple episodes within an Adult Mental Health Care spell and these episodes can be concurrent.**
Technical Detail – Data Dictionary Definition	A continuous period of care for a PATIENT by one or more Adult Mental Health Care Teams.
Data Dictionary Link	www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/a/adult_mental_health_care_team_episode_de.asp?query=teamepisode&rank=75&shownav=1

Term	Assessment Period
Description	**The period of time from the start date of the Adult Care Spell (i.e. Referral or transfer into service) to the date of the first MHCT and the commencement of the Mental Health Cluster Assignment Period.**
Technical Detail – Data Dictionary Definition	The beginning of the assessment period is determined by the receipt of a referral or transfer into service from an external source or out of scope internal service. Services would typically summarise their initial assessment using the MHCT the date of which signifies the end date of the assessment period and the commencement of the Mental Health Cluster Assignment Period. The assessment period in most cases should not be lengthy, and typically is completed within 2 contacts within a reasonable time period from referral or transfer into service. In some cases, assessment may lead to immediate discharge or transfer to a more appropriate service external to the provider and in this case a Mental Health Cluster Assignment Period would not be initiated by an MHCT. Local agreement will then be required to ensure payment for the assessment can be triggered.
Data Dictionary Link	

Term	Mental Health Care Cluster Assignment Period
Description	**The period of time that a PATIENT is assigned to a Mental Health Care Cluster during a Mental Health Care Spell.**
Technical Detail	There would usually be one continuous Mental Health Care Cluster Assignment Period per Adult Mental Health Care Spell. However, there could be multiple Mental Health Care Cluster Assignment Periods if a patient's pathway includes teams and services which are both in and out of scope, though for the Mental Health Care Cluster Assignment Period to end, the patient would need to be in receipt of services solely from an out of scope ward/team within the Adult Mental Health Care Spell. Multiple Care Cluster Assignment Periods cannot run concurrently.
Data Dictionary Link	www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/m/mental_health_care_cluster_assignment_period_de.asp?query=-MentalHealthCareClusterAssignmentPeriod&rank=3&shownav=1

Term	Cluster Review Period (Maximum, Actual, Average and Agreed)
Description	**A Cluster Review Period is the time between consecutive Mental Health Cluster Tool assessments within a Mental Health Care Cluster Assignment Period.**
Technical detail	The first Mental Health Cluster Tool Assessment in the Mental Health Care Cluster Assignment Period is classed as the initial Mental Health Cluster Tool Assessment. Any subsequent Mental Health Cluster Tool assessments are classed as Mental Health Cluster Tool Assessment Reviews. A cluster review period can be the time between an initial and review Mental Health Cluster Tool assessment or the time between subsequent reviews. A cluster review period can be measured in three different ways: *1. Maximum Cluster Review Period* The maximum period is the per cluster period as specified in table 7-6 of *The 2014/15 National Tariff Payment System: A Consultation Notice*). *2. Actual Cluster Review Period* When working with data at an individual patient level, the actual Cluster review period will be based on the actual dates of the initial and subsequent Mental Health Cluster Tool Assessments recorded in the client record. *3. Average Cluster Review Period* When working with aggregated data for groups of patients, an average Cluster review period can be calculated by computing the difference between the actual dates of the initial and/or subsequent Mental Health Cluster Tool Assessments recorded in the client records and then dividing this by the number of clients in the aggregated group.

The *agreed Cluster Review Period* is any of the above Cluster Review Periods that is selected and agreed between a Healthcare Provider and a Commissioner as a basis for contracting.

Example Actual Cluster Review Period

Client A starts cluster 13 on 01/01/2011, on the 13/12/2011 Client A is re-assessed and stays on cluster 13. On the 31/07/2012 Client A is re-assessed and moved to cluster 14, the cluster periods would look like this. This would equate to 3 actual cluster review periods.

Client Name	MHCT Assessment Date	Cluster Assigned	Actual Cluster Period Start Date	Actual Cluster Period End Date
Client A	01/01/2012 (initial)	13	01/01/2011	13/12/2011
Client A	13/12/2011 (review)	13	13/12/2011	31/07/2012
Client A	31/07/2012 (review)	14	31/07/2012	

Data Dictionary Link

There is no Data Dictionary equivalent definition for a cluster review period.

Term	Cluster Episode Period Duration
Description	**The number of days that a patient has remained on the same cluster regardless of whether MHCT assessment reviews have taken place.**

Technical Detail

Using the same example as above, client A starts cluster 13 on 01/01/2011. On the 13/12/2011 Client A is re-assessed and stays on cluster 13. On the 31/07/2012 Client A is re-assessed and moved to cluster 14, the cluster episode would look like this. This would equate to 2 cluster episodes.

Client Name	MHCT Assessment Date	Cluster Assigned	Cluster Episode Period Duration Start Date	Cluster Episode Period Duration End Date
Client A	01/01/2012 (initial)	13	01/01/2011	
Client A	01/05/2012 (review)	13		31/07/2012
Client A	31/07/2012 (review)	14	31/07/2012	

Data Dictionary Link	There is no Data Dictionary equivalent definition for Cluster Episode Period Duration.

EVENTS

Term	Start Date (Hospital Provider Spell)
Description	**This is more commonly known as Admission Date and is the event which triggers the start of a Hospital Provider Spell.**
Technical Detail	The Start Date of the Hospital Provider Spell is the date of admission: the CONSULTANT or MIDWIFE has assumed responsibility for care following the DECISION TO ADMIT the PATIENT.
Data Dictionary Link	www.datadictionary.nhs.uk/data_dictionary/data_field_notes/s/star/start_date_(hospital_provider_spell)_de.asp?query=admissiondate&rank=5&shownav=1

Term	Discharge Date (Hospital Provider Spell)
Description	**This is the event which triggers the end of a Hospital Provider Spell.**
Technical Detail	DISCHARGE DATE (HOSPITAL PROVIDER SPELL) is the date a PATIENT was discharged from a Hospital Provider Spell.
Data Dictionary Link	www.datadictionary.nhs.uk/data_dictionary/data_field_notes/d/disa/discharge_date_(hospital_provider_spell)_de.asp?shownav=0

Term	Start Date (Adult Mental Health Care Spell)
Description	**The date of referral, or the temporary or permanent transfer of main responsibility for provision of mental health care to a provider which commences a new care spell.**
Technical Detail	No data dictionary definition found.
Data Dictionary Link	

Term	End Date (Adult Mental Health Care Spell)
Description	END DATE (ADULT MENTAL HEALTH CARE SPELL) is the date a PATIENT was discharged from an Adult Mental Health Care Spell.
Technical Detail	No data dictionary definition found. Nearest equivalent is DISCHARGE DATE (MENTAL HEALTH SERVICE)
Data Dictionary Link	www.datadictionary.nhs.uk/data_dictionary/data_field_notes/d/disa/discharge_date_(mental_health_service)_de.asp?shownav=1

Term	Initial Mental Health Clustering Tool Assessment
Description	**The first Mental Health Clustering Tool Assessment that occurs within a Mental Health Care Cluster Assignment Period should be the initial Mental Health Clustering Tool assessment.** The Assessment Reason recorded at the time of this Assessment should be **"01 New Referral Request".**
Technical Detail	The NHS Data Dictionary description of the Mental Health Clustering Tool Assessment is: www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/m/mental_health_clustering_tool_de.asp?shownav=1 The NHS Data Dictionary contains the definition of Mental Health Clustering Tool Assessment Reason: www.datadictionary.nhs.uk/data_dictionary/attributes/m/men/mental_health_clustering_tool_assessment_reason_de.asp?query=clustering&rank=75&shownav=1

Term	Mental Health Clustering Tool Assessment Review
Description	**Following the first Mental Health Clustering Tool Assessment that occurs within a Mental Health Care Cluster Assignment Period any subsequent assessments occurring within the same Mental Health Care Cluster Assignment Period should be Mental Health Clustering Tool assessment reviews.** The Assessment Reason recorded at the time of this Assessment should be **other than "01 New Referral Request".**
Technical	The NHS Data Dictionary description of the Mental Health Clustering Tool

Detail	Assessment is: www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/m/mental_health_clustering_tool_de.asp?shownav=1 The NHS Data Dictionary contains the definition of Mental Health Clustering Tool Assessment Reason: www.datadictionary.nhs.uk/data_dictionary/attributes/m/men/mental_health_clustering_tool_assessment_reason_de.asp?query=clustering&rank=75&shownav=1

Term	**Mental Health Clustering Tool Assessment (Discharge)**
Descrip-tion	**Recorded at the point (or near to) discharge from Mental Health Clustering Period, the Mental Health Clustering Tool Assessment (Discharge) is required to capture the assessment scales only and the super class and cluster should not be captured at discharge.**
Technical Detail	The NHS Data Dictionary description of the Mental Health Clustering Tool Assessment is: www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/m/mental_health_clustering_tool_de.asp?shownav=1

GENERAL TERMS

Term	Relative Value Unit
Description	A relative value unit represents a weighted measure to reflect the differing treatment intensity associated with differing clusters at a team level. This weighting is reflective of the recorded time and skill mix of staffing input within the relevant cluster.

Term	Activity Plan
Description	A plan of chargeable activity for a given financial period (eg. month, quarter, year), based on agreed cluster review periods. This can be calculated as the projected number of cluster review periods due in a given period, i.e. month, quarter, year based on a snapshot of current MHCT casemix (total number of clients on each cluster) multiplied by the agreed (maximum or average) cluster review period duration.

Term	Active Caseloads
Description	The number of patients with a current (not closed) mental health cluster assignment.

Term	Cluster Day
Description	The shortest time period used to compare the length of Mental Health Care Cluster assignment periods. i.e. The cluster a patient is assigned to on any given day within a care cluster assignment period.

Term	MHCT Casemix
Description	An aggregated profile (e.g. at health care provider, ward, mental health team or individual practitioner caseload level) usually including active patients (but could be historic patients) broken down by the number in each MHCT cluster.

Term	Mental Health Care Cluster Super Class
Description	The Mental Health Care Super Class enables the Mental Health Care Clusters to be narrowed down, by deciding if the origin of the presenting condition is primarily non-psychotic, psychotic or organic.
Technical Detail	A Mental Health Care Cluster Super Class is identified during the process of assigning a Mental Health Care Cluster to a PATIENT. It enables the

	number of applicable Mental Health Care Clusters to be narrowed down, by deciding if the origin of the presenting condition is primarily: • non-psychotic • psychotic or • organic If the PATIENT cannot be assigned to a Mental Health Care Cluster, MENTAL HEALTH CARE CLUSTER SUPER CLASS CODE is recorded as National Code Z '*Unable to assign* PATIENT *to Mental Health Care Cluster*', and the PATIENT will automatically be assigned to Mental Health Care Cluster 0 (Variance).
Data Dictionary Link	www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/m/mental_health_care_cluster_super_class_de.asp?query=superclass&rank=75&shownav=1

Summary table of glossary terms

Type	Term	Description
Periods	Care Spell	This is an overarching and continuous period of time that a patient spends in the care of a single or multiple healthcare providers.
	Child and Adolescent Mental Health Care Spell	This is an overarching and continuous period of time that a patient spends in the care of a single healthcare provider of child and adolescent mental health services.
	Adult Mental Health Care Spell	This is an overarching and continuous period of time that a patient spends in the care of a single healthcare provider of adult mental health (including elderly) services.
	Hospital Provider Spell	A hospital provider spell is a continuous period of care including periods of leave of up to 28 days in an inpatient setting where a bed is occupied.
	Adult Mental Health Care Team Episode	The period of time a patient spends under the continuous care of a specialist Adult Mental Health Team within a healthcare provider. For the purposes of Mental Health Clustering, these teams may be in scope or out of scope for National MH PbR services. Adult Mental Health Care Team Episodes typically occur in community based teams. A patient can have multiple episodes within an Adult Mental Health Care spell and these episodes can be concurrent.
	Assessment Period	The period of time from the start date of the Adult Care Spell (i.e. Referral or transfer into service) to the date of the first MHCT and the commencement of the Mental Health Cluster Assignment Period.
	Mental Health Care Cluster Assignment Period	The period of time that a PATIENT is assigned to a Mental Health Care Cluster during a Mental Health Care Spell.
	Cluster Review Period (Maximum, Actual, Average and Agreed)	A Cluster Review Period is the time between consecutive Mental Health Cluster Tool assessments within a Mental Health Care Cluster Assignment Period.
	Cluster Episode Period Duration	The number of days that a patient has remained on the same cluster regardless of whether MHCT assessment reviews have taken place.
Events	Start Date (Hospital Provider Spell)	This is more commonly known as Admission Date and is the event which triggers the start of a Hospital Provider Spell.

	Discharge Date (Hospital Provider Spell)	This is the event which triggers the end of a Hospital Provider Spell.
	Start Date (Adult Mental Health Care Spell)	The date of referral, or the temporary or permanent transfer of main responsibility for provision of mental health care to a provider which commences a new care spell.
	End Date (Adult Mental Health Care Spell)	END DATE (ADULT MENTAL HEALTH CARE SPELL) is the date a PATIENT was discharged from a Adult Mental Health Care Spell.
	Initial Mental Health Clustering Tool Assessment	The first Mental Health Clustering Tool Assessment that occurs within a Mental Health Care Cluster Assignment Period should be the initial Mental Health Clustering Tool Assessment. The Assessment Reason recorded at the time of this Assessment should be **"01 New Referral Request".**
	Mental Health Clustering Tool Assessment Review	Following the first Mental Health Clustering Tool Assessment that occurs within a Mental Health Care Cluster Assignment Period any subsequent assessments occurring within the same Mental Health Care Cluster Assignment Period should be Mental Health Clustering Tool assessment reviews. The Assessment Reason recorded at the time of this Assessment should be **other than "01 New Referral Request".**
	Mental Health Clustering Tool Assessment (Discharge)	Recorded at the point (or near to) discharge from Mental Health Clustering Period, the Mental Health Clustering Tool Assessment (Discharge) is required to capture the assessment scales only and the super class and cluster should not be captured at discharge.
General Terms	**Clusters**	The 21 clusters are based on the characteristics of service users and group people with similar characteristics together, in a clinically meaningful way.
	Mental Health Clustering Tool	This tool includes the twelve standards items of the Health of the Nation Outcome Scores (HoNOS) rated on a current basis and six additional items, mostly rated on an historical basis. The 13 current items are labelled 1-13, the five historical items A-E
	Currency	In PbR, a currency (sometimes called a secondary classification) is the unit for which a payment is made. For example, an outpatient attendance for a physical ailment is a currency. The clusters are the currency for mental health services.

	Relative Value Unit	A relative value unit represents a weighted measure to reflect the differing treatment intensity associated with differing clusters at a team level. This weighting is reflective of the recorded time and skill mix of staffing input within the relevant cluster.
	Activity Plan	A plan of chargeable activity for a given financial period (eg month, quarter, year) based on agreed cluster review periods.
	Active Caseloads	Patients with a current (not closed) mental health cluster assignment.
	Cluster Day	The shortest time period used to compare the length of the Mental Health Care Cluster assignment periods.
	MHCT Casemix	An aggregated profile (e.g. at Healthcare provider, ward, mental health team or individual practitioner caseload level) usually including active patients (but could be historic patients) broken down by the number in each MHCT cluster.
	Mental Health Care Cluster Super Class	The Mental Health Care Super Class enables the Mental Health Care Clusters to be narrowed down, by deciding if the origin of the presenting condition is primarily non-psychotic, psychotic or organic.
	Care Packages	Care packages is the name given to the responses designed to meet the needs of individuals within the clusters. Care packages will not be nationally mandated as part of mental health PbR (although many will inevitably be based on NICE guidance) to allow flexibility in meeting people's needs.
	Care Pathways	The care packages an individual receives over a period of time could be described as their care pathway.
	Tariff	In PbR terms, a tariff normally means a nationally set price for a given currency. We have not committed to a timescale for moving to,a national tariff for mental health services. This will be for Monitor and the NHS Commissioning Board to determine.
	Top-up payments	Some individuals in a cluster may be "outliers", having additional needs beyond the core ones associated with the cluster (e.g. substance misuse might be an issue for an individual in cluster 3, Non Psychotic (moderate severity)), or a service user may require a translator. These may need to be met through an additional top-up payment, which will need to be agreed by commissioners and providers.

	Unbundling	A term used in PbR to refer to the splitting up of a currency into smaller units. A cluster could be unbundled if multiple providers were commissioned to provide care e.g. a main provider offering the majority of care, and then a more specialist provider to provide part of the care pathway.

Annex C: Calculating relative resource intensity using patient level data

This annex sets out a method for calculating the Relative Resource Intensity (RRI) that organisations can use to weight activity and allocate costs to clusters as described in Section 4 of the mental health guidance.

This method can **only** be used by organisations that are able to undertake patient level costing, or an alternative bottom-up approach.

The tables included here are illustrative only and are **not** meant to be used for comparison with your own organisation. You will need to work through the methodology by inputting your own data.

Relative Resource Intensity

This approach is based on a calculation of the direct staff costs of interventions, which are then used to determine the RRI of care provided across the clusters. The approach therefore recognises the resources employed in different cluster treatments.

An extract from the organisation patient administration system (PAS) should be written for a reporting period which includes the following patient level information:

- Cluster allocated. Where no cluster is allocated, the patient is assumed to be in the initial assessment phase.
- Length of time of appointment.
- Band of staff.
- Number of days the patient has been allocated to the cluster for the period reported on. This should be from the day after a cluster is assigned.

Using this information, calculate a cost of the staffing resource utilised across these patients (the figures included in all the examples below are included to illustrate the calculations, they do not relate to any specific services, however by the inclusion of team and/or service in the extract from PAS system it would facilitate the extract of weightings at team and/or service):

Patient ***(A)***	***Cluster*** ***(B)***	***Appointment time*** ***(C)***	***Band*** ***(D)***	***Staff rate per hour*** ***(E)*** ***£***	***Cost of appointment*** *(C*E)* ***(F)*** ***£***
W	Assessment	45 mins	Band 7	£21.75	£16.31
X	1	30 mins	Band 6	£18.55	£9.28
Y	2	60 mins	Band 8a	£27.72	£27.72
Z	3	60 mins	Cons	£65.40	£65.40

All appointments before a cluster has been allocated to a patient are counted as initial assessment appointments. The appointment at which the patient is clustered is counted as the final initial assessment appointment; following that, all subsequent appointments are counted as treatment appointments against the allocated cluster(s).

This patient level data is then consolidated for the appointments identified as initial assessment and at the individual cluster levels to obtain a total direct staffing cost per cluster for this period.

Using a report from the information collected through the Mental health clustering tool (MHCT), we can then obtain the total patient days (the total time that patients have spent in each cluster – column H below).

Cluster number	***Total of cluster*** **(G)** **£**	***Patient days for period*** ***(H)***	***Cost per patient day*** *(G/H)* ***(I)*** **£**	***RRI*** *(cluster cost (I)/ lowest cluster cost (I))* ***(J)***
0	129,938	15,750	8.25	1.65
1	38,750	7,750	5.00	1.00
2	227,125	39,500	5.75	1.15
3	485,850	79,000	6.15	1.23
4	711,000	79,000	9.00	1.80
5	279,063	23,750	11.75	2.35
6-21*	8,954,400	546,000	16.40	3.28
Assessment	515,964	39,538	13.05	2.61
TOTAL	**11,342,089**	**830,288**		

*Clusters 6 – 21 need to be calculated separately.

The cost of clinical staff time is the cost driver being used to identify the relative resource intensity between the clusters. Those weightings are based on a calculated direct cost per patient day (column I). These are then converted into an RRI (column J), relative to the lowest cluster cost.

The RRI provides an indication of the relative resource utilisation of the clusters. From the example in the table above we can see cluster 5 is shown to be 2.35 times more resource intensive than cluster 1. We would encourage organisations to sense check the RRI with clinicians before using them as the basis for pricing.

Ideally this stage is completed utilising 12 months of data from the MHCT. Where there is a limited level of data available, a sample will be more appropriate.

The above calculation can be applied at an organisation, directorate and or team level to develop benchmarking. As accuracy improves, the data collected will lead to developing bottom-up costing at team levels. Monitor is currently undertaking further work with the Healthcare Financial Management Association (HFMA) to further develop mental health costing.

Annex D

Mental Health Clustering Tool

Initial Assessment Algorithm

Technical Guidance

Table of Contents

1 Purpose of the Document

The purpose of this Technical Guidance document is to provide sufficient detail for technical development staff to understand and implement the Mental Health Clustering Tool (MHCT) initial assessment algorithm.

The guide is aimed at:

- Anyone who would like to understand how the algorithm processes the MHCT assessment scores and derives the percentage fit against relevant clusters.
- Technical development staff that will embed the algorithm into local systems.
- Systems suppliers that wish to embed the algorithm into their systems.

The guide provides details in relation to the logic followed and calculations performed by the algorithm and provides a suggested implementation guide to assist with the presentation of the functionality to clinicians.

2 Background

The Mental Health Clustering Tool is a core component of the cluster currency and payment approach for mental health service. The tool is fully described in the Clustering Handbook, which forms part of the mental health guidance for the National Tariff document for 2014-15. This package can be found on Monitor's website.

The purpose of the tool is to assess a service user's needs and guide clinicians to allocate the service user to 1 of 21 clusters which will be used to define the best package of care to meet the needs of the service user.

The algorithm is an electronic decision support tool to assist the clinician in allocating a service user to the correct cluster based on the clustering handbook. The decision support tool is **not** designed to replace clinical judgement. but is required to ensure consistency of clustering and to improve the overall accuracy of cluster allocation. The clinician should always make the final decision in relation to the most clinically appropriate cluster and must be able to over-ride the algorithm result.

The algorithm has been designed for use with the first MHCT assessment in any Mental Health Clustering Assessment Period (i.e. the assessment and clustering of new referrals to an organisation) and is not appropriate for use to support the decision-making in relation to MHCT reviews.

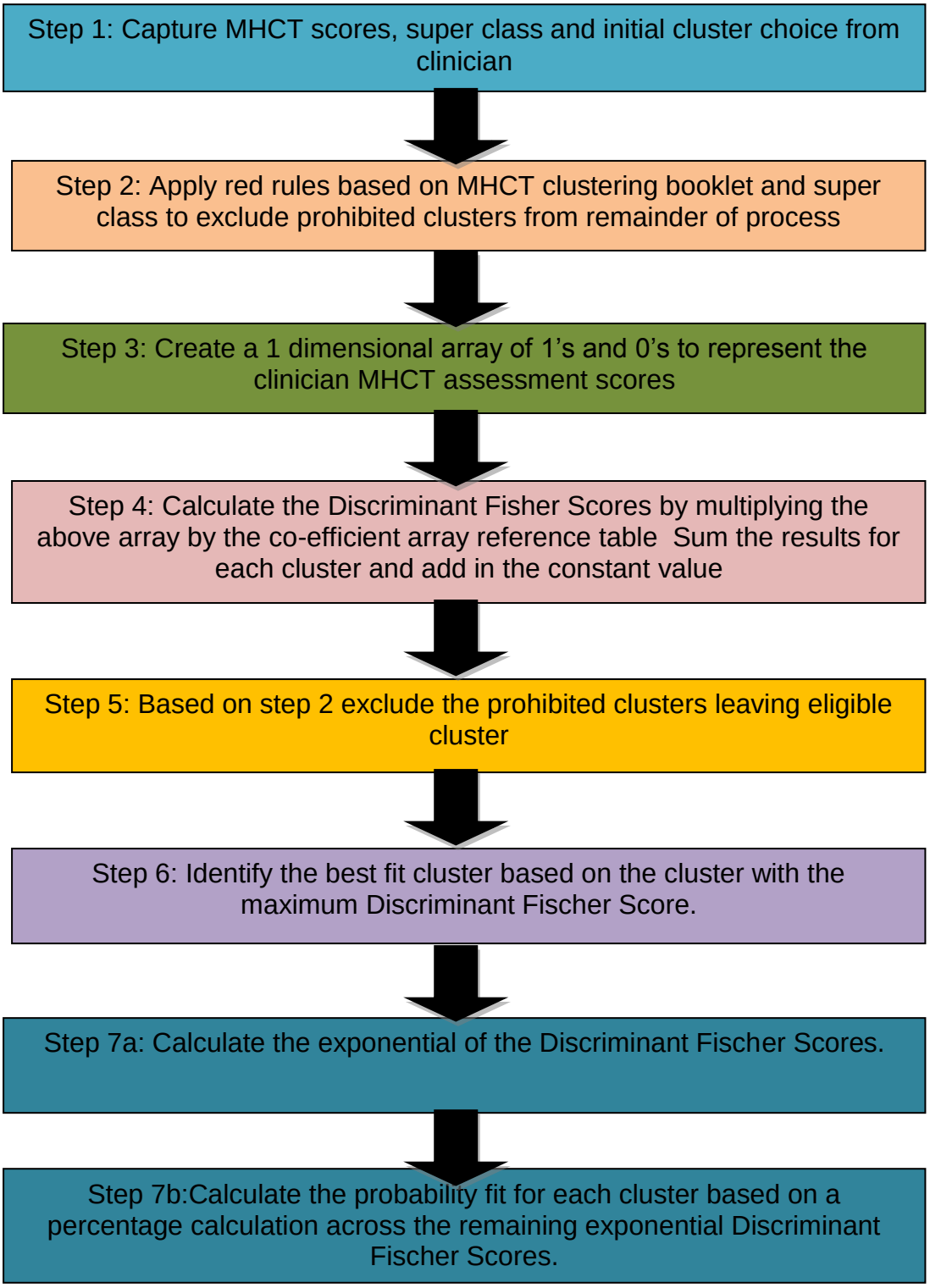
The algorithm is also designed to be used as an on-line, real-time, clinical decision support tool and ideally should be embedded within clinical systems and used as a part of routine clinical recording.

It is possible to pass initial MHCT assessments through the algorithm retrospectively to report the level of agreement between the clinician allocation and the algorithm. This may be useful to identify areas with unusual allocation behaviours that require further investigation. However, the algorithm output should not be used to over-ride the clinically allocated cluster and should never be used to retrospectively overwrite clinically entered clusters.

3 MHCT Initial Assessment Algorithm Technical Detail

3.1 High-level flowchart

The logic of the algorithm is shown below (the box shading matches the shading in algorithm tab in the supporting spreadsheet "MCHT Algorithm v3.3" (see section 6.1): A more detailed description of each step follows with a worked example.



3.1.1 Step 1: Capture Scores

For this worked example, the following information is captured from the clinician:

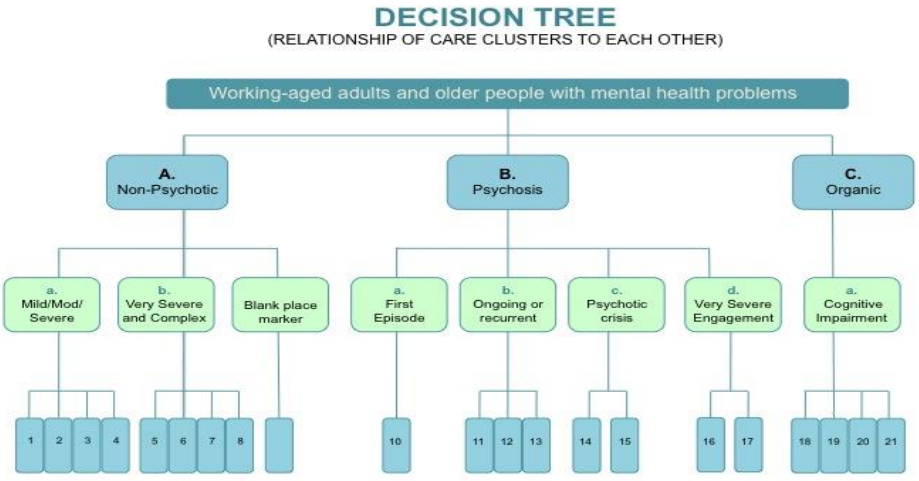
Item #	Description	Score (0 - 4)
1	Overactive, aggressive, disruptive or agitated behaviour	1
2	Non-accidental self injury	1
3	Problem drinking or drug taking	1
4	Cognitive Problems	2
5	Physical Illness or disability problems	1
6	Hallucinations and Delusions	1
7	Depressed mood *	1
8	Other mental and behavioural problems *	1
9	Relationships	1
10	Activities of daily living	1
11	Living conditions	1
12	Occupation & Activities	1
13	Strong Unreasonable Beliefs	0
A	Agitated behaviour/expansive mood	0
B	Repeat Self-Harm	0
C	Safeguarding other children & vulnerable dependant adults	0
D	Engagement	0
E	Vulnerability	0

The superclass is C – Organic.

The clinician prediction for this MHCT is 19 - Cognitive Impairment or Dementia Complicated (Moderate Need)

3.1.2 Step 2: Apply Red Rules and Super Class exclusions

Based on the above data the eligible clusters can be identified using the super class/cluster relation diagram in the Clustering Handbook (see diagram below). In the worked example, the super class is C organic, so this excludes all clusters apart from 18-21.



The application of the red rules then excludes cluster 20. This is based on the colour coded rules illustrated in the grids accompanying the description of each Care Cluster in the Clustering Handbook. The grid for Cluster 20 is shown below with the scores captured in step 1 overlaid on the grid (as an X) to show how the red rule for Item 4 is not met.

No	Item Description	Score				
		0	1	2	3	4
2	Non-accidental self injury		X			
3	Problem drinking or drug taking		X			
4	Cognitive Problems			X		
5	Physical Illness or disability problems		X			
6	Hallucinations and Delusions		X			
7	Depressed mood *		X			
8	Other mental and behavioural problems *		X			
9	Relationships		X			
10	Activities of daily living		X			
11	Living conditions		X			
12	Occupation & Activities		X			
13	Strong Unreasonable Beliefs	X				
A	Agitated behaviour/expansive mood	X				
B	Repeat Self-Harm	X				
C	Safeguarding other children & vulnerable dependant adults	X				
D	Engagement	X				
E	Vulnerability	X				

Must score
Expected to score
May score
Unlikely to score
No data available

In the above example, this set of scores will not result in a Cluster 20 being classed as an eligible cluster by the algorithm, as the score for item 4 – cognitive problems is 2 and does not meet the red rules for this cluster as Item 4 must score either 3 or 4.

It is important to note that this step is merely identifying eligible clusters for the process of the algorithm and the clinician can decide to over-ride the algorithm after reviewing the results and still allocate to an non-eligible cluster if it is deemed clinically appropriate.

3.1.3 Step 3: Convert the MHCT scores to an array of 1's and 0's

The next steps require a number of calculations to be performed on the MHCT scores.

To facilitate this, the item scores (0-4) for each item must be programmatically arranged into a 1 dimensional array and the actual score represented by a 1. The start of the array is shown below. For the sake of brevity the full array is not shown but would contain 90 rows in total (18 items x 5 item selections (0-4) = 90). Using the worked example from Step 1 (section 3.1.1) the array is shown for the first 36 rows.

MHCT Item 1 Score 0	0
MHCT Item 2 Score 0	0
MHCT Item 3 Score 0	0
MHCT Item 4 Score 0	0
MHCT Item 5 Score 0	0
MHCT Item 6 Score 0	0
MHCT Item 7 Score 0	0
MHCT Item 8 Score 0	0
MHCT Item 9 Score 0	0
MHCT Item 10 Score 0	0
MHCT Item 11 Score 0	0
MHCT Item 12 Score 0	0
MHCT Item 13 Score 0	1
MHCT Item A Score 0	1
MHCT Item B Score 0	1
MHCT Item C Score 0	1
MHCT Item D Score 0	1
MHCT Item E Score 0	1
MHCT Item 1 Score 1	1
MHCT Item 2 Score 1	1
MHCT Item 3 Score 1	1
MHCT Item 4 Score 1	0
MHCT Item 5 Score 1	1
MHCT Item 6 Score 1	1
MHCT Item 7 Score 1	1
MHCT Item 8 Score 1	1
MHCT Item 9 Score 1	1
MHCT Item 10 Score 1	1
MHCT Item 11 Score 1	1
MHCT Item 12 Score 1	1
MHCT Item 13 Score 1	0
MHCT Item A Score 1	0
MHCT Item B Score 1	0
MHCT Item C Score 1	0
MHCT Item D Score 1	0
MHCT Item E Score 0	0

3.1.4 Step 4: Calculate the Discriminant Fischer Scores

The next step requires the use of a reference table which contains a set of pre-determined co-efficient values that were derived through Discriminant Analysis applied to a nationally representative data set.

This reference table is contained in Annex E.

When this table is compared to the array created in the previous step, there is a corresponding column for each row in the array. The column contains a co-efficient value for each item score. The reference table contains 21 rows of these co-efficient values, one row for each cluster. A mathematical calculation is required to multiply each of the values (1 or 0) in the array created in step 3 (section 3.1.3) by the corresponding co-efficient value in the column in the reference table. These calculations are performed for each eligible cluster, so for the worked example this would be clusters 18, 19 and 21.

The sum of all of the multiplications create a total for each eligible cluster and is added to a corresponding constant value for each cluster (also included in the reference table). The total of the multiplication total and the constant is known as the Discriminant Fischer Score.

Using the worked example, this produces a set of values for each cluster and this is shown in detail in Annex F. For brevity, only the co-efficients where a corresponding 1 is present in the array are shown and only eligible clusters are shown. All other values in the array would be 0.

A summary of the resulting calculation from Annex F is shown below:

Cluster	Array Multiplication TOTAL	Constant Value	Array TOTAL plus Constant
18	26957.67	-13418.23	13539.44
19	26922.28	-13396.31	13525.97
21	26369.67	-13077.37	13292.30

Discriminant Fischer Score

The final total column on the right is the Discriminant Fischer Score for each of the eligible clusters in the worked example.

3.1.5 Step 5: Exclude prohibited clusters

This step is included for consistency with the spreadsheet model, however, this is effectively implemented in Step 2 (section 3.1.2) above and can be omitted from system development.

3.1.6 Step 6: The Best Fit Cluster

The “Best Fit Cluster” is the eligible cluster with the maximum Discriminant Fischer Score based on the calculations in step 4 (section 3.1.4).

In the worked example, the Best Fit Cluster is cluster 18 with a value of 13539.44.

3.1.7 Step 7: Calculate the percentage fit for each eligible cluster

From the Discriminant Fischer Scores for each cluster, the percentage fit for each cluster can be calculated.

This is done by calculating the exponential of the Discriminant Fischer score. In order to ensure that that Excel and programmatic languages can cope with the exponential that is calculated (sometimes the values can be very large) the result is also divided by 100 as shown in the table below.

Cluster	Array Multiplication TOTAL	Constant Value	Array TOTAL plus Constant	EXP/100
18	26957.67	-13418.23	13539.44	6.32481E+58
19	26922.28	-13396.31	13525.97	5.52766E+58
21	26369.67	-13077.37	13292.30	5.34228E+57
			TOTAL	1.23867E+59

From the exponential figure, the percentage fit can be calculated by dividing each exponential value by the total of all the exponentials (1.23867E+59) and multiplying by 100, as shown below:

Cluster	Array Multiplication TOTAL	Constant Value	Array TOTAL plus Constant	EXP/100	% Fit
18	26957.67	-13418.23	13539.44	6.32481E+58	51%
19	26922.28	-13396.31	13525.97	5.52766E+58	45%
21	26369.67	-13077.37	13292.30	5.34228E+57	4%
				1.23867E+59	

4 Results Presentation

The final results need to be presented back to the clinician.

It is recommended that the data captured in stage 1 is displayed along with the algorithm output. This would include the original MHCT assessment item scores, the superclass and the clinician's original cluster.

A list of all of the clusters and their descriptions should be presented to the user as the algorithm output, with the in-eligible clusters as determined in stage 2 (section 3.1.2) greyed out.

For the remaining clusters, the best fit cluster should be highlighted and the percentage fit figure calculated in step 7 (section 3.1.7) displayed against the relevant clusters.

The table below illustrates the algorithm output for the worked example:

Probability of cluster membership (based on statistical algorithm scores & taking Red Rules into account)		
1	Common Mental Health Problems (Low Severity)	0%
2	Common Mental Health Problems (Low Severity with greater need)	0%
3	Non Psychotic (Moderate Severity)	0%
4	Non-psychotic (Severe)	0%
5	Non-psychotic Disorders (Very Severe)	0%
6	Non-psychotic Disorder of Over-valued Ideas	0%
7	Enduring Non-psychotic Disorders (High Disability)	0%
8	Non-Psychotic Chaotic and Challenging Disorders	0%
10	First Episode Psychosis	0%
11	Ongoing Recurrent Psychosis (Low Symptoms)	0%
12	Ongoing or recurrent Psychosis (High Disability)	0%
13	Ongoing or Recurrent Psychosis (High Symptom & Disability)	0%
14	Psychotic Crisis	0%
15	Severe Psychotic Depression	0%
16	Dual Diagnosis	0%
17	Psychosis and Affective Disorder – Difficult to Engage	0%
18	Cognitive Impairment (Low Need)	51%
19	Cognitive Impairment or Dementia Complicated (Moderate Need)	44%
20	Cognitive Impairment or Dementia Complicated (High Need)	0%
21	Cognitive Impairment or Dementia (High Physical or Engagement)	4%

To further support clinical decision making, a hyperlink from each of the clusters could be presented which would display the relevant scoring grid from the cluster booklet with the scores entered by the clinician overlaid on to the grid. An example of this presentation is shown in section 3.1.2

5 Final Clinician Decision

5.1 Clinician Override

Following the presentation of the original MHCT data and the final results, the clinician should be asked to confirm which cluster represents their final clinical decision. This could be the original cluster they chose, the best fit from the algorithm or any of the clusters allowed in the super-class, or Cluster 0 which is the variance cluster signifying that the needs of the service user are not met by any of the clusters (1-21).

In short, the clinician should have the flexibility to completely over-ride the algorithm, and choose any cluster permitted within the super class they have selected or Cluster 0 (see diagram in section 3.1.2)

5.2 Data Capture

In addition to the MHCT item scores and super class, it is recommended that the following data items are captured and stored in the database along with each MHCT where the algorithm is used:

1) Clinician's originally chosen cluster prior to the algorithm presentation
2) The percentage fit for each eligible cluster as calculated in step 7
3) The Clinician's final choice of cluster following algorithm output presentation
4) A version number relating to the MHCT algorithm cluster (current version 3.3)
5) A version number relating to the software version of the local algorithm

Items 1-3 are required so that further analysis can be carried out on the performance and influence of the algorithm, particularly where frequent changes in the original clinical choice occur or where frequent clinical override of the algorithm is occurring. The capture of these items will allow the analysis of the clinician's original choice of cluster, the outputs of the algorithm and the final clinical choice.

Items 4 and 5 are important to maintain a record of the version of the algorithm at the time of clustering and will assist change control should the algorithm itself be updated or should change control in the local implementation be necessary (ie bug fixes).

6 Developer Resources

6.1 Excel Spreadsheet

An excel spreadsheet is available and should be viewed in conjunction with this document.

The spreadsheet contains a tab entitled “front sheet” which captures the clinical data and presents the algorithm results.

The “algorithm” tab shows the calculations described in section 3 of this document and is colour coded to match the flowchart in section 3.1.

Important Note
There are two versions of this spreadsheet a .xls version for Excel 2003 and earlier and .xlsx for Excel 2007 and later. It is imperative that the correct version is loaded and corresponds with the installed version of Excel. The .xlsx version will load in Excel 2003 if the Microsoft Office compatibility pack is installed, but it will show incorrect results in some circumstances as the number of columns in the .xlsx version exceeds the maximum limit of Excel 2003 and earlier and these columns are truncated without warning. The ,xls version was created specifically for Excel 2003 and earlier and conforms to the column limits of these earlier versions of Excel.

The spreadsheets can be found in Annex G and Annex H.

6.2 Web based example implementation

The Care Package and Pathways Consortium (CPPP) website hosts an example web based implementation of the algorithm from the clinical capture of data through to the presentation of the output.

This can be accessed at www.cppconsortium.nhs.uk/algorithm/

6.3 Web service implementation

In addition to the web based implementation, the Care Package and Pathways Consortium (CPPP) website hosts a web service which allows MHCT assessment item scores to be sent to the site via HTML and the algorithm results returned via XML.

This will allow Trusts to implement the algorithm from local systems/Intranets by calling the web service.

Documentation for the web service is provided on the CPPP website at the address in section 6.2 above.

6.4 Source code and test data

The PHP source code for the CPPP web based version of the algorithm has been published by CPPP. Also available is a set of test MHCT assessments with the algorithm outputs to facilitate testing and assurance of local developments

These resources can be accessed on the CPPP website at the address in section 6.2 above.

6.5 Version control and change management

It is not anticipated that there will be frequent updates to the algorithm, however, as the algorithm is used and its performance analysed, there may be some minor refinement particularly in relation to the scoring grids and red rules as used in Step 2 (section 3.1.2) and the co-efficient values shown in Annex E and used in step 4 (section 3.1.4).

To ensure consistent version control, developers should record the algorithm version used to during clinical decision support as outlined in section 5.2 above.

To assist change management, it is recommended that the reference table of co-efficient values shown in Annex E and used in step 4 (section 3.1.4) and the scoring grids and red rules as used in Step 2 (section 3.1.2) are maintained in editable reference tables rather than hard coded into software. The reference tables should be accessible to system administration staff to allow ease of update without the need for suppliers to issue software upgrades. It is important that access to these reference tables is restricted to authorised system administration staff so that strict change control processes can be applied.

Any changes to the data in the reference tables should also require the user to update the algorithm version number (currently 3.3) as referenced in section 5.2 above to maintain an audit trail of which algorithm version has been used at any given time.

7 Acknowledgements

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http://boxcleverconsulting.com/

Ben Scorer, Systems Development Manager, Northumberland, Tyne and Wear
www.ntw.nhs.uk/

Care Package and Pathways Consortium
www.cppconsortium.nhs.uk

Annex E – Co-efficient reference table

Access the Excel file here

Annex F – Discriminant Fischer Scores for Worked example

Access the Excel file here

Annex G - Algorithm spreadsheet Excel 2003 version

Access the Excel file here

Annex H - Algorithm spreadsheet Excel 2007 version

Access the Excel file here

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