Appendix Hoofdstuk 4 Screening en diagnostiek bij volwassenen

Wetenschappelijke onderbouwing screening en diagnostiek

4.2.2 Clinical review protocol (case identification and assessment)

The review protocol summary, including the review questions, can be found in Table 1 (a complete list of review questions and full review protocols can be found in Appendix 7; further information about the search strategy can be found in Appendix 8)

Table 1: Review protocol summary for the review of case identification instruments and assessment of bipolar disorder

Topic	Interventions
Review question(s)	RQ 1.1: For adults at risk of or suspected as having bipolar disorder, what identification instruments when compared to a gold standard diagnosis (based on DSM or ICD criteria) have adequate clinical utility (i.e. clinically useful with good sensitivity and specificity) and reliability? RQ 1.2: For children (less than 13 years) and young people (13 to 18 years) at risk of or suspected of having bipolar disorder, what identification instruments when compared to a gold standard diagnosis (based on DSM or ICD criteria) have adequate clinical utility (i.e. clinically useful with good sensitivity and specificity) and reliability? RQ 1.3: For people with possible bipolar disorder, what are the key components of, and the most effective structure for, diagnostic assessment? What amendments, if any, need to be made for (i) particular cultural or minority ethnic groups, (ii) gender, (iii) children and young people, (iv) older adults?
Objectives	For RQ 1.1 and RQ 1.2: To identify brief screening instruments to assess need for further assessment of people with suspected bipolar disorder and to assess their diagnostic accuracy. For RQ 1.3: To identify the key components of a comprehensive assessment
Criteria for considering studies for the review	

• Intervention	For case identification (RQ 1.1 and RQ 1.2): Brief screening questionnaires (<15 items) identified by the GDG
• Comparator	Gold standard: DSM or ICD diagnosis of bipolar disorder
• Types of participants	Children and young people (aged 18 years and younger) and adults with suspected bipolar disorder
• Outcomes	Sensitivity (percentage of true cases identified). Specificity (percentage of non-cases excluded).
• Study design	Studies had to include participants with and without bipolar disorder completing a case-identification instrument and a diagnostic interview.
Note.	

For case identification (RQ1.1 and 1.2), pooled diagnostic accuracy meta-analyses on the sensitivity and specificity of specific case identification instruments for bipolar disorder were conducted (dependent on available data). In the absence of adequate data, it was agreed by the GDG that a narrative review of case identification instruments would be conducted and guided by a pre-defined list of consensus-based criteria (for example, the clinical utility of the instrument, administrative characteristics, and psychometric data evaluating its sensitivity and specificity).

For assessment (RQ1.3), it was decided that a consensus-based approach to identify the key components of an effective assessment would be used.

4.2.2.1 Case identification: method

When evaluating case identification instruments, the following criteria were used to decide whether an instrument was eligible for inclusion in the review:

Clinical utility: the instrument should be feasible and implementable in a routine clinical care, especially primary care. The instrument should contribute to the identification of further assessment needs and inform decisions about referral to other services.

Instrument characteristics and administrative properties: A case identification instrument should be brief, easy to administer and score and be able to be interpreted without extensive and specialist training. The GDG agreed that, in order to support its use in a range of non-specialist settings such as primary care, it should contain no more than 15 items and take no more than 5 minutes to administer.

Non-experts from a variety of care settings (for example, primary care, general medical services, and educational, residential or criminal justice settings) should

be able to complete and interpret the instrument with relative ease. The instrument should be available in practice, and free to use where possible.

Psychometric data: The instrument should have established reliability and validity (although this data will not be reviewed at this stage). It must have been validated against a gold standard diagnostic instrument such as DSM-IV or ICD-10 and it must have been reported in a paper that described its sensitivity and specificity (see Chapter 3 for a description of diagnostic test accuracy terms).

4.2.2.2 Case identification: studies considered[1]

The literature search yielded 6,954 citations. Of those, 165 were potentially relevant. Twenty-two were excluded (see Appendix 32). Studies conducted only in specialist mental health populations, or special groups, were not considered because it would make it difficult to generalise to the general population attending primary care, which is the focus of this review. Studies that did not use instruments in English were also excluded, to ensure greatest applicability to the UK. Only studies where there was evidence that a structured diagnostic interview was performed were included.

Four studies met all of the eligibility criteria. References of included studies were hand searched. Two studies evaluated case identification instruments for adults and two for children. They were published in peer-review journals between 2003 and 2009. The four included studies (N=2,125) evaluated one instrument for adults and two for children and included 100 to 1066 participants receiving both a screening instrument and a diagnostic interview. Case identification instruments included between ten and thirteen questions. Studies were conducted in the community and in psychiatric settings (for further information about each study see Table 2).

Of the four studies, two evaluated the Mood Disorder Questionnaire (MDQ): DODD2009 (Dodd et al., 2009), HIRSCHFELD2003 (Hirschfeld et al., 2003). One study evaluated the CMRS-P: HENRY2008 (Henry et al., 2008), and one study evaluated the Conners' Abbreviated Parent Questionnaire: TILLMAN2005 (Tillman & Geller, 2005).

4.2.2.3 Clinical evidence for case identification instruments

Overall, the studies were assessed as having a low risk of bias. The index tests (case identification instruments) were conducted independently of the reference tests (diagnostic interviews) and the time between case identification and diagnostic interview was not relevant given the stability of the diagnosis. Only one study evaluated the instrument in the general population

[1]Here and elsewhere in the guideline, each study considered for review is referred to by a study ID in capital letters (primary author and date of study publication, except where a study is in press or only submitted for publication, then a date is not used).

(HIRSCHFELD2003); one in a general population of women only (DODD2009); the other two were undertaken in clinical settings (see Table 2).

Review Manager 5 (Cochrane Collaboration, 2011) was used to summarise the test accuracy data reported in each study using forest plots and summary ROC plots.

The three instruments varied in their specificity and sensitivity. As shown in Figure 1, the area under the curve varied reflecting differences in the effectiveness of the measures (see Chapter 3 for more information about how this was interpreted). The sensitivity and specificity of each measure is included in Table 2.

Figure 1: Summary ROC plot of brief case identification instruments

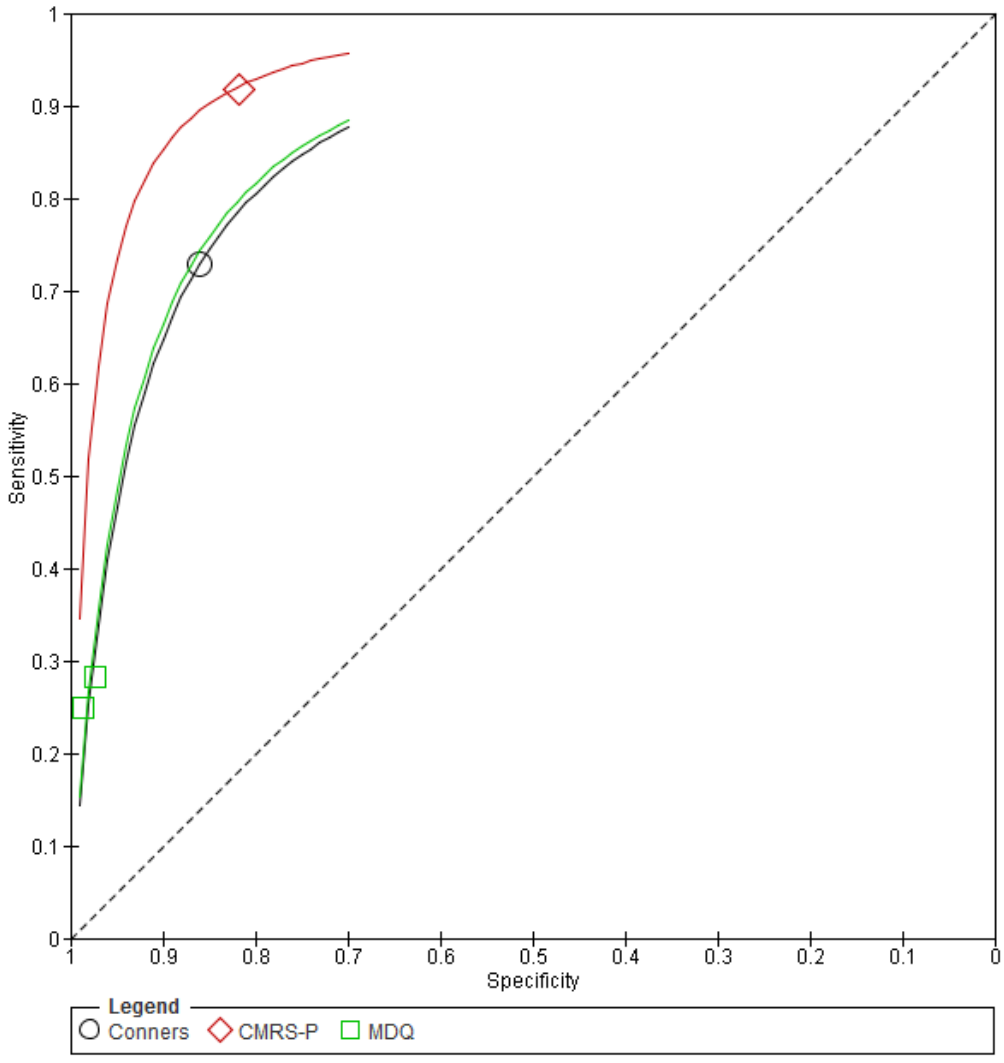

Table 2: Study information table for trials comparing a brief identification instrument with a 'gold standard' clinical interview

Study	Instrument	No. of items	Range (cut-off)	Recruitment	N	Female, n (%)	Age	Country	Prevalence	Sensitivity	Specificity
DODD2009	MDQ	13	Yes/no (7)	Community	1066	1066 (100%)	51	Australia	2.3%	0.25	0.99
HENRY2008	CMRS-P	10	4 point Likert scale. 4-40 (10)	Community and psychiatric settings	100	45 (45%)	10	USA	50%	0.92	0.82
HIRSCHFELD2003	MDQ	13	Yes/no (7)	Community (General population)	695	NR	46	USA	11.2%	0.28	0.97
TILLMAN2005	Conners' Abbreviated Parent Questionnaire	10	4 possible answers per question. 4-40 (9 for 7-8y, 8 for 9-10y, 6 for 11-16y)	Community and psychiatric settings	264	89 (34%)	11	USA	34.9%	0.73	0.86

Note. MDQ = Mood Disorder Questionnaire; CMRS-P = Child Mania Rating Scale – Parent version;

Evidence about the sensitivity and specificity of instruments to identify people with bipolar disorder comes from only a few studies, and only one instrument has been evaluated in more than one study. No study was conducted in the UK.

The MDQ is a self-rated tool and has 13 items with a yes/no answer, plus a further two assessing the temporal clustering of symptoms and functional impairment (4-point scale). It may not be very useful as a screening tool in the general population because screening test sensitivities in a primary care setting would likely be intermediate between those obtained in psychiatric populations and the general community.

The child and adolescent instruments were evaluated in populations that included subjects with ADHD, which is an important differential diagnosis in this age group.

The Child Mania Rating Scale – Parent (CMRS-P) brief version, is a 10-item instrument, with four possible answers per question and showed accuracy comparable to the full scale. The Conner's abbreviated Parent Questionnaire, is an instrument to assess ADHD in children and adolescents, has 10 items, each with four possible answers. None of these measures had satisfactory properties for identifying bipolar disorder in primary care.

4.3.9 Assessment

4.3.9.1 Assessment: method

The GDG was unable to identify any formal evaluations of the structure and content of the overall clinical assessment process for people with possible bipolar disorder other than the data on the various case identification instruments described above. With an absence of evidence on the content of an assessment in adults, the GDG discussed this using informal consensus methods (as set out in Chapter 3) and their expert knowledge and experience. The GDG drew up a list of the following components of an assessment to consider when making recommendations:

the person's symptom profile, including a history of mood, episodes of overactivity, disinhibition or other episodic and sustained changes in behaviour, symptoms between episodes, triggers to previous episodes and patterns of relapse, and family history social and personal functioning and current psychosocial stressors potential mental and physical comorbidities general physical health and side effects of medication, including weight gain involvement of a family member or carer to give a corroborative history treatment history and interventions that have been effective or ineffective in the past possible factors associated with changes in mood, including relationships, psychosocial factors and lifestyle changes risk to self and to others.

The GDG also discussed the components of a long-term management plan. They considered that the plan should cover possible triggers and early warning signs of relapse, a protocol for increasing medication for those at risk of onset of mania, agreements between primary and secondary care about how to respond to an increase in risk and how service users and carers can access help in a crisis, with a named professional.

4.3.9.2 Assessment: clinical summary

The GDG was unable to identify any high-quality evidence that related to the process of assessment for people with bipolar disorder. As a result the GDG drew on their expert knowledge and experience using informal consensus methods. The considerations that fed into the development of recommendations are described above and in the next section.