APPENDIX 19: ECONOMIC PLAN

This document identifies the priorities for economic analysis and the proposed methods for addressing these questions as described in section 7.1.3 of *The Guidelines Manual* (2009).

1.1 GUIDELINE

Title of guideline: Psychosis in conjunction with substance misuse: the assessment and management of psychosis with substance misuse[1]

1.2 PROCESS FOR AGREEMENT

The economic plan was prepared by the guideline economist in consultation with the rest of the NCC technical team and GDG. It was discussed and agreed on 11/09/2009 by the following people[2]

For the NCC and GDG:	
NCC economist:	Matthew Dyer
NCC representative(s) [3]:	Tim Kendall, Katherine Leggett, Laura Shields, Craig Whittington
GDG representative(s) [4]:	Peter Tyrer
For NICE:	
CCP lead [5]:	Tim Stokes
Commissioning manager:	Claire Turner
Economic lead [6]:	Francis Ruiz, Stefanie Kinsley
Costing lead:	Brian Sloan

Proposals for any substantive changes will be circulated by email to this group. If revisions are agreed, they will be listed as addenda to this document.[7]

[1] The guideline title changed to 'Psychosis with coexisting substance misuse: assessment and management in adults and young people' during the course of development.
[2] This may be done by face-to-face meeting, teleconference, or email as convenient.

[3] May be the project manager, a systematic reviewer or research fellow and/or the centre director or manager, as appropriate for the NCC and guideline.

[4] May be GDG chair, clinical lead and/or other members as appropriate.

[5] CCP Director or Associate Director who is taking the lead for the guideline.

[6] One of the CCP health economic Technical Advisors.

[7] There were no revisions.

1.3 PROPOSED ECONOMIC PLAN

Review question (in PICO format if possible)		Requires analysis [8]	Comment and explanation
Assessment/screening			
1	How should we identify people with coexisting psychosis and substance misuse?	Medium priority for analysis	Identification of people with coexisting psychosis and substance misuse may have important resource implications in terms of influencing the downstream cost effectiveness of interventions directed to this specific population. However, identification and assessment of people with coexisiting psychosis and substance misuse is likely to involve a combination of various physical, biological, psychological and neuopsychiatric measures. Modelling the care pathway from assessment to patient stratification and potential complications of harmful substance misuse would require significant resources in order to identify appropriate data relating to the effectiveness of assessment and monitoring tools as well as of the interventions for the clinical management of complications. Furthermore, it is unlikely that the literature will provide sensitivity and specificity data relating to all possible combinations in order to populate an economic model. Alternative methods of screening/identification may be analysed in an economic model depending on the clinical data available. If this is not possible, the GDG will consider undertaking simple cost analyses to assess the total costs and any potential savings associated with alternative screening and identification tools. For all methods of screening/identification, resource implications as well as any implementation issues will be considered by the GDG when making recommendations.
2	In people with coexisting psychosis and substance	Not relevant	This question is not relevant for economic analysis as it addresses the key

[8] a ʻ**Not relevant**ʼ: questions where economic analysis is not appropriate (for example, about definitions, prognosis or information needs for patient);
b ʻ**In literature**ʼ: questions where high-quality, recent and relevant economic evaluations are already available;
c ʻ**High priority for analysis**ʼ: questions where an economic analysis is planned (important implications and analysis is thought to be feasible);
d ʻ**Medium priority for analysis**ʼ: questions where an economic analysis may be done (less important implications or questions over feasibility);
e ʻ**Low priority for analysis**ʼ: questions where economic analysis could be done, but the expected impact on outcomes and NHS resources is low.

	misuse, what are the key elements for a comprehensive assessment (of needs and risks)?		elements that are necessary in assessing people with coexisting psychosis and substance misuse rather than alternative assessment strategies themselves, which may have important resource implications.
Models of care/access to services			
3	In people with coexisting psychosis and substance misuse, does an integrated model of care (usually involving the model of assertive community treatment) when compared with an alternative management strategy lead to improved outcomes?	High priority for analysis	Identifying the most (cost) effective model of care for people with coexisting psychosis and substance misuse has important resource use implications. There is some existing economic evidence which will be presented to the GDG [1-3]. Depending on the available clinical data, an economic model will be developed to assess the cost effectiveness of an integrated model of care in comparison other management strategies including serial or parallel models of care. The relative clinical efficacy of alternative management strategies will be dependent on the guideline systematic review and meta-analyses. If there are no clinical data available to compare the effectiveness of alternative management strategies, simple cost analyses will be conducted.
4	In people with coexisting psychosis and substance misuse, do the psychological/psychosocial interventions listed below (delivered within an integrated service model) when compared with an alternative management strategy lead to improved outcomes? Individual interventions Group interventions Family interventions Contingency management Residential treatment (with/without recovery model) Combined interventions	High priority for <u>separate</u> analysis	Effective psychological/psychosocial interventions will be included as part of the economic analysis for question 3 where appropriate clinical data allows direct or indirect comparisons between such interventions for this population. There is some existing economic evidence which will be presented to the GDG [4-6].The relative clinical efficacy of alternative psychological/psychosocial interventions will be dependent on the guideline systematic review and meta-analyses. If there is no available data to allow comparison between psychological/psychosocial interventions, then comparisons of the cost effectiveness of individual interventions versus standard care will be made. Again this is dependent on availability of relevant data and time constraints. If this is not possible, the GDG will consider simple cost analyses to assess costs and potential savings associated with specific interventions that are judged by the GDG to be associated with important resource implications. For all interventions that are analysed, resource implications as well as implementation issues (for example, availability of appropriately trained staff in the NHS) will be considered by the GDG when making recommendations.
5	In people with coexisting psychosis and substance misuse, does staffed accommodation when compared to an alternative management strategy lead to improved outcomes?	Low priority for analysis	Staffed accommodation for people with coexisting psychosis and substance misuse has resource implications. However, this topic is considered a low priority for further analysis as it is unlikely there will be sufficient quantitative clinical evidence to inform a *de novo* economic model.

Inpatient care/residential rehabilitation			
6	When a person with coexisting psychosis and substance misuse is admitted to an inpatient mental health setting (including forensic settings), should treatment follow the same principles as interventions delivered in a community setting? Sub-question: Are there subgroups of people for whom we would alter our approach to treatment?	Not relevant	This review question is not a suitable topic for economic analysis as it does not seek to directly compare the (clinical) effectiveness/efficacy of inpatient mental healthcare versus community mental healthcare for people with coexisting psychosis and substance misuse. Instead, the question is addressing whether treatment follows the same underlying general principles in both inpatient and community healthcare settings.
Care pathways			
7	In people with coexisting psychosis and substance misuse, what is the most appropriate care pathway (involving all NHS and non-NHS providers) and referral guidance at each transition?	Low priority for analysis	Identifying appropriate care pathways for people with coexisting psychosis and substance misuse may have important resource implications (both within and outside of the NHS and PSS settings). However, this topic is considered a low priority for further analysis as it is unlikely there will be sufficient quantitative clinical evidence to inform a *de novo* economic model. However, for all care pathways that are discussed by the GDG, resource implications as well as implementation issues (for example, availability of appropriately trained staff in the NHS) will be considered by the GDG when making recommendations.
Medication for psychosis			
8	For people with coexisting psychosis and substance misuse, should the medical treatment of their psychosis be modified as a result of the substance misuse problem and the treatment provided? During the acute phase During non-acute care If so, how should treatment be modified?	Medium priority for analysis	Pharmacological interventions for people with psychosis will have important resource implications. If the clinical evidence suggests that such interventions are to be modified (during the acute or non-acute phase) for people with coexisting substance misuse, it will be important to analyse their relative cost effectiveness. However, it is unlikely that there will be adequate clinical evidence on specific pharmacological treatments for people with psychosis and coexisting substance misuse in order to inform a *de novo* economic model. Consideration will also be given to the cost effectiveness of pharmacological interventions analysed in previously published guidelines from the NCCMH on bipolar disorder; drug misuse (opioid detoxification) and schizophrenia. The GDG will also consider resource implications when making relevant recommendations.
Psychological/psychosocial interventions for psychosis			
9	For people with coexisting psychosis and substance misuse, should the psychological/psychosocial treatment of their	Medium priority for analysis	Psychological/psychosocial interventions for people with psychosis will have important resource implications. If the clinical evidence suggests that such interventions are to be modified (during the acute or non-acute phase) for

	psychosis be modified as a result of the substance misuse problem and the treatment provided? During the acute phase During non-acute care If so, how should treatment be modified?		people with coexisting substance misuse, it will be important to analyse their relative cost-effectiveness. However, it is unlikely that there will be adequate clinical evidence on specific psychological/psychosocial treatments for people with psychosis and coexisting substance misuse in order to inform a *de novo* economic model. Consideration will also be given to the cost effectiveness of pharmacological interventions analysed in previously published guidelines from the NCCMH on bipolar disorder; drug misuse (psychological interventions) and schizophrenia. The GDG will also consider resource implications when making relevant recommendations.
Medication/physical interventions for substance misuse			
10	For people with coexisting psychosis and substance misuse, should the medical/physical treatment of substance misuse be modified as a result of the presence of psychosis and the treatment provided? During the acute phase During non-acute care If so, how should treatment be modified?	Medium priority for analysis	Medical/physical treatments for people with substance misuse will have important resource implications. If the clinical evidence suggests that such interventions are to be modified (during the acute or non-acute phase) for people with coexisting substance misuse, it will be important to analyse their relative cost-effectiveness. However, it is unlikely that there will be adequate clinical evidence on specific medical/physical interventions for people with psychosis and coexisting substance misuse in order to inform a *de novo* economic model. Consideration will also be given to the cost effectiveness of pharmacological interventions analysed in previously published guidelines from the NCCMH on bipolar disorder; drug misuse (opioid detoxification) and schizophrenia. The GDG will also consider resource implications when making relevant recommendations.
Psychological/psychosocial interventions for substance misuse			
11	For people with coexisting psychosis and substance miuse, should the psychological/psychosocial treatment of substance misuse be modified as a result of the presence of psychosis and the treatment provided? During the acute phase During non-acute care If so, how should treatment be modified?	Medium priority for analysis	Psychological/psychosocial interventions for people with substance misuse will have important resource implications. If the clinical evidence suggests that such interventions are to be modified (during the acute or non-acute phase) for people with coexisting substance misuse, it will be important to analyse their relative cost effectiveness. However, it is unlikely that there will be adequate clinical evidence on specific psychological/psychosocial interventions for people with psychosis and coexisting substance misuse in order to inform a *de novo* economic model. Consideration will also be given to the cost effectiveness of pharmacological interventions analysed in previously published guidelines from the NCCMH on bipolar disorder; drug misuse (psychological interventions) and schizophrenia.

			The GDG will also consider resource implications when making relevant recommendations.
Drug interactions			
12	In people with psychosis and substance misuse, is there any evidence that the management of drug interactions or adverse effects from pharmacological treatments should be different from those people without coexisting disorders? If so, how should management of drug interactions be modified?	Low priority for analysis	This is a low priority for economic analysis as it does not directly address the comparative clinical effectiveness of specific pharmacological treatments for people with coexisting psychosis and substance misuse. Furthermore, it is unlikely that there will be sufficient evidence on drug interactions wthin people with coexisting psychosis and substance misuse.

For each question where economic analysis is proposed:

Question number(s) [9]	Outline proposed method of analysis [10]
3, 4	Integrated care model compared with alternative management strategies in people with coexisting psychosis and substance misuse. An economic model, most likely in the form of decision tree, will be developed to assess the cost effectiveness of alternative management strategies for people with coexisting psychosis and substance misuse. The key comparators considered for analysis will be an integrated care model (usually involving the model of assertive community treatment) along with serial or parallel models of care. The comparators will be determined by the availability of clinical data. Alternative models of care will be considered if appropriate clinical data allow direct or indirect comparisons between them. The study population will be people with coexisting psychosis and substance misuse. The main health states in the model are expected to be relapse/no relapse (measured as exacerbation of symptoms requiring change in health care management). Other possible important outcomes that may be considered in the model include: impact on mortality/physical morbidity and; impact on substance misuse. The time horizon of the analysis will depend on the availability of data (endpoints of relevant RCTs), but will ideally be long enough to consider the full impact on costs and outcomes associated with response/ remission as a result of alternative [patient] management strategies. An NHS and Personal Social Services (PSS) perspective will be taken for the analysis. Resource use involved in the management strategies will be based on clinical studies (RCTs or observational studies) reporting relevant data, Hospital Episode Statistics (HES)[11] for England, other published literature and, where evidence is lacking, GDG expert opinion. Unit costs will be taken from from national sources (BNF, NHS reference costs, PSSRU Health and Social Care Costs) where possible (British Medical Association and the Royal Pharmaceutical Society of Great Britain, 2007; Department of Health, 2008; Curtis, 2008). If possible, outcomes will be expressed in the from of QALYs. If not, studies reporting utilities specific to people with coexisting psychosis and substance misuse, it may be possible to refer to studies reporting utility scores derived in people with psychosis or substance missue alone. Secondary outcomes, such as

[9] Two or more questions may be addressed by a single analysis if appropriate.

[10] Give a brief description of the type of analysis that is proposed, as far as is known at this stage. Consider the type of economic evaluation (CEA, CUA, CCA,…); how outcomes will be measured (QALYs, LYS,…); the type of modelling (decision tree, Markov, simulation…); proposed comparators and population subgroups to be considered; potential sources of information and assumptions; and whether analysis could be based on an existing model. Follow methods advised in *The Guidelines Manual* whenever possible. Note that this is not expected to be a full project protocol, and that the methods of analysis may change.

[11] www.hesonline.nhs.uk

	the number of people responding to treatment or in remission at the endpoint of analysis may also be considered. Costs and outcomes will be discounted at a rate of 3.5 if the time horizon of the model is beyond 12 months (with rates of between 0-6% to be used in sensitivity analyses). Deterministic and probabilistic sensitivity analyses will be used to explore the impact of uncertainty in key parameters on the results of the analysis. Several studies have explored the cost-effectiveness of alternative management strategies for people with co-existing psychosis and substance misuse (Clark, 1998; Craig *et al.*, 2008: Weaver, 2009). These will be reviewed and a summary of their key findings presented to the GDG. Studies of adequate quality and relevance will be included in GRADE profiles developed for clinical and health economics evidence. Psychological/psychosocial interventions (delivered within an integrated service model) compared with alternative management strategies An economic model, most likely in the form of decision tree, will be developed to assess the cost effectiveness of psychological/psychosocial interventions for people with coexisting psychosis and substance misuse. The key comparators considered for analysis will be individual interventions including CBT or motivational interviewing (MI); group interventions including CBT or MI; family interventions; contingency management; residential treatment; and combined interventions. The comparators will be determined by the availability of clinical data. Alternative psychological/psychosocial interventions will be considered if appropriate clinical data allow direct or indirect comparisons between them. The study population will be people with coexisting psychosis and substance misuse. The main health states in the model are expected to be relapse/no relapse (measured as exacerbation of symptoms requiring change in healthcare management). Other possible important outcomes that may be considered in the model include: impact on mortality/physical morbidity and; impact on substance misuse. The time horizon of the analysis will depend on the availability of data (endpoints of relevant RCTs), but will ideally be long enough to consider the full impact on costs and outcomes associated with response/ remission as a result of alternative [patient] management strategies. An NHS and Personal Social Services (PSS) perspective will be taken for the analysis. Resource use involved in the management strategies will be based on clinical studies (RCTs or observational studies) reporting relevant data, Hospital Episode Statistics (HES)[12] for England, other published literature and, where evidence is lacking, GDG expert opinion. Unit costs will be taken from from national sources (BNF, NHS reference costs, PSSRU Health and Social Care Costs) where possible (British Medical Association and the Royal Pharmaceutical Society of Great Britain, 2007; Department of Health, 2008; Curtis, 2008).

[12] www.hesonline.nhs.uk

	If possible, outcomes will be expressed in the from of QALYs. If not, studies reporting utilities specific to people with psychosis and coexisting substance misuse, it may be possible to refer to studies reporting utility scores derived in people with psychosis or substance missue alone. Secondary outcomes, such as the number of people responding to treatment or in remission at the endpoint of analysis may also be considered. Costs and outcomes will be discounted at a rate of 3.5% if the time horizon of the model is beyond 12 months. Discount rates will be altered between a plausible range of 0-6% in sensitivity analyses of costs and outcomes. Deterministic and probabilistic sensitivity analyses will be used to explore the impact of uncertainty in key parameters on the results of the analysis. Several studies have explored the cost effectiveness of psychological/ psychosocial interventions for people with psychosis and coexisting substance misuse (Haddock *et al*., 2003; Jerrell *et al*., 1994; Johnson, 2000). These will be reviewed and a summary of their key findings presented to the GDG. Studies of adequate quality and relevance will be included in 'economic profiles' specifically developed for clinical and health economics evidence.

Key references

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