Management of psychotic disorders (schizophrenia)

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Description of condition and intervention

Schizophrenia ranks among the top ten most disabling and economically catastrophic medical disorders globally. It is characterized by chronic or recurrent psychosis, include positive symptoms (like hallucinations or delusions), negative symptoms (like flat affect or speech issues), cognitive impairment or mood and anxiety related symptoms. Pharmacotherapy is the cornerstone of the treatment of this disorder and includes anti-psychotic medications as the first-line medication. Cognitive-behavioural therapy, family psychoeducation intervention, or social skills training are some of the psychosocial interventions that can be given as an adjunct to pharmacotherapy to achieve better outcomes. Source: UpToDate accessed on 22 August 2021.

In this evidence brief, we present the effect and cost of the following intervention being analysed in FairChoices: DCP Analytical tool:

Basic psychosocial support and anti-psychotic medication

International guidelines

Organization	Indications/recommendations	Applicability in LIC & Lower MIC settings
World Health Organization	mhGAP intervention guide for mental, neurological and substance use disorders in non-specialized health settings: mental health Gap Action Programme (mhGAP)	Yes

Source: WHO 2016

(DCP4 ID: MENTD03)
Cluster: Mental & substance use disorders

Intervention attributes

Type of interventions
Curative

Delivery platform
This intervention may be delivered as part of routine care services predominantly at health centre level.

Equity
In addition to considerations like cost-effectiveness and health systems factors, dimensions of equity can be relevant for priority setting. The opportunity for a long and healthy life varies according to the severity of a health condition that individuals might have, so there are inequities in individuals' opportunities for long and healthy lives based on the health conditions they face. Metrics used to estimate the severity of illness at an individual level can be used to help prioritize those with less opportunity for lifetime health. FairChoices: DCP Analytics Tool uses Health adjusted age of death (HAAD), which is a metric that estimates the number of years lived from birth to death, discounting years lived with disability. A high HAAD thus represents a disease less severe in terms of lifetime health loss, while a low HAAD represents a disease that is severe on average, causing early death or a long period of severe disability. It is also possible to estimate the distribution of HAAD across individuals with a health condition. FairChoices shows for each intervention an average HAAD value of the conditions that are affected by respective interventions that have health effects. Additionally, a plot shows HAAD values for around 290 conditions (Johansson KA et al 2020).

Time dependence
Moderate level of urgency. Treatment outcomes may be affected by some days of delay.

Population in need of interventions

Intervention taxonomy	Treated population & treated fraction	Affected population & affected fraction	Epidemiological Indicator
Basic psychosocial support and anti-psychotic medication	10 to 99 years	100% with condition	Prevalence of schizophrenia

Disease state addressed

This intervention targets schizophrenia (self-harm).

Intervention effect and safety

Table 1: Effect and safety of intervention for schizophrenia

Effect of intervention		Certainty of evidence
Disability	0.23 (expert opinion)	See appendix

Model assumptions

Table 2: Summary of model parameters and values used in FairChoices – DCP Analytical Tool

Category	Model parameter	Notes
Intervention	Basic & intensive psychosocial support with anti-psychotic medication for schizophrenia	
Cost calculation		
Treated population	Based on prevalence of schizophrenia	Global Burden of Disease study 2019
Gender	Both male & female	
Age	10-99 years	
Treated fraction Basic psychosocial support with anti-psychotic medication	1	

Effect calculation		
Affected population	Those with condition	
Affected gender	Both male & female	
Affected fraction age	10 to 99 years	
Affected fraction for disability reduction Basic psychosocial support with anti-psychotic medication	1	
Comparison	No intervention	
Disability Reduction (RRR) Basic psychosocial treatment	0.23	Expert opinion

Intervention cost

The unit cost for managing schizophrenia using generic anti-psychotic medications and psychosocial treatment is estimated at USD 38.91 in Uganda in 2008 USD. The cost is based on Chisholm et al. 2016, which provided estimates for the annual cost per average case. The unit cost was calculated as the sum for the cost of non-specialist care, basic psychosocial treatment for psychosis, advice, and follow-up, anti-psychotic medication, and Intensive psychosocial intervention for psychosis.

References

WHO 2016: World Health Organization. mhGAP intervention guide for mental, neurological and substance use disorders in non-specialized health settings: mental health Gap Action Programme (mhGAP). World Health Organization; 2016.

Johansson KA, Coates MM, Økland JM, Tsuchiya A, Bukhman G, Norheim OF, Haaland Ø. Health by disease categories. Distributional Cost-Effectiveness Analysis: Quantifying Health Equity Impacts and Trade-Offs. 2020 Sep 30:105.

OneHealth Tool. Geneva: World Health Organization; 2021. Available from https://www.who.int/tools/onehealth (accessed on 25-October-2021)

Chisholm D, Burman-Roy S, Fekadu A, Kathree T, Kizza D, Luitel NP, Petersen I, Shidhaye R, De Silva M, Lund C. Estimating the cost of implementing district mental healthcare plans in five low- and middle-income countries: the PRIME study. Br J Psychiatry. 2016 Jan;208 Suppl 56(Suppl 56):s71-8. doi: 10.1192/bjp.bp.114.153866. Epub 2015 Oct 7. PMID: 26447170; PMCID: PMC4698559.

Appendix

Literature Review for effectiveness & safety

This literature search is an example of Level 1 search for intervention inputs taken from DCP3 or generated in an ad hoc manner (e.g., quick google search found one study of cervical cancer screening cost-effectiveness that was used to create an effectiveness parameter for that intervention).

Level of evidence of efficacy studies:

1. low (expert opinions, case series, reports, low-quality case control studies)
2. moderate (high quality case control studies, low quality cohort studies)
3. high (high quality cohort studies, individual RCTs)
4. very high (multiple RCTs, meta-analysis, systematic review, clinical practice guidelines)