Online Appendix

First-Episode Psychosis Services Fidelity Scale (FEPS-FS) evidence-based practices and rating criteria

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Individual evidence-based practices	**1**	**2**	**3**	**4**	**5**
1. Timely contact with referred individual: patient is seen within two weeks of service receiving referral	Target met in-person appointment for 0-19% patients	Target met for in-person appointment for 20-39% patients	Target met for in-person appointment for 40-59% patients	Target met for in-person appointment for 60-79% patients	Target met for in-person appointment for 80+% patients
2. Patient and family involvement in assessments: service engages patient and family in initial assessment to improve quality of assessment and engagement	0-19% of families seen during initial patient assessment	20-39% of families seen during initial patient assessment	40-59% of families seen during initial patient assessment	60-79% of families seen during initial patient assessment	80+% of families seen during initial patient assessment
3. Comprehensive clinical assessment. Initial assessment includes: 1. Time course of symptoms, change in functioning and substance use; 2. Recent changes in behaviour; 3. Risk assessment risk to self/others; 4. Mental status exam; 5. Psychiatric history; 6. Premorbid functioning; 7. Co-morbid medical illness; 8. Co-morbid substance use; 9. Family history	All assessment items found in 0-19% of patients	All assessment items found in 20-39% of patients	All assessment items found in 40-59% of patients	All assessment items found in 60-79% of patients	All assessment items found in 80+% of patients

Individual evidence-based practices	**1**	**2**	**3**	**4**	**5**
4. Psychosocial needs assessed for care plan: assess patient and family preference and incorporate into care plan needs related to: 1. Housing; 2. Employment; 3. Education; 4. Social support; 5. Finances; 6. Basic living skills; 7. Primary care access; 8. Social skills; 9. Family support; 10. Past trauma; 11. Legal	All items addressed in 0-19% of care plans	All items addressed in 20-39% of care plans	All items addressed in 40-59% of care plans	All items addressed in 60-79% of care plans	All items addressed in 80+% of care plans
5. Individualized clinical treatment plan after initial assessment: patients, family and staff develop individualized treatment plan using evidence-supported treatments addressing patient needs, goals and preferences (i.e. pharmacotherapy, psychotherapy addictions, mood problems suicide prevention, weight management)	0-19% of patients receive explicit individualized clinical treatment plan	20-39% of patients receive explicit individualized clinical treatment plan	40-59% of patients receive explicit individualized clinical treatment plan	60-79% of patients receive explicit individualized clinical treatment plan	80+% of patients receive explicit individualized clinical treatment plan
6. Antipsychotic medication prescription: after diagnostic assessment confirms psychosis and need for pharmacotherapy, antipsychotic medication is prescribed after taking into consideration patient preference	0-19% patients receive prescription for antipsychotic medication	20-39% patients receive prescription for antipsychotic medication	40-59% patients receive prescription for antipsychotic medication	60-79% patients receive prescription for antipsychotic medication	80+% patients receive prescription for antipsychotic medication

Individual evidence-based practices	**1**	**2**	**3**	**4**	**5**
7. Antipsychotic dosing within recommendations: antipsychotic dosing is within government approved guidelines for second-generation antipsychotic medications and between 300 and 600 chlorpromazine equivalents for first-generation antipsychotics at 6 months	0-19% eligible patients receive guided reduction of antipsychotic medication	20-39% eligible patients receive guided reduction of antipsychotic medication	40-59% eligible patients receive guided reduction of antipsychotic medication	60-79% eligible patients receive guided reduction of antipsychotic medication	80+% eligible patients receive guided reduction of antipsychotic medication
8. Guided antipsychotic dose reduction**:** patients who have had positive symptoms for more than one month and have achieved remission for at least one year are offered guided and monitored reduction of antipsychotic medication, some may discontinue medication. Ideally family or significant others are aware	0-19% eligible patients receive guided reduction of antipsychotic medication	20-39 % eligible patients receive guided reduction of antipsychotic medication	40-59 % eligible patients receive guided reduction of antipsychotic medication	60-79 % eligible patients receive guided reduction of antipsychotic medication	80+ % eligible patients receive guided reduction of antipsychotic medication
9. Clozapine for medication resistant symptoms: use of clozapine if individual does not respond adequately after two trials of antipsychotics (equivalent to 10 mg haloperidol, and over 3 month period), one of which is a second generation antipsychotic	< 1 % patients on Clozapine at 2 years	1-3% patients on Clozapine at 2 years	3-5% patients on Clozapine at 2 years	6-8% patients on Clozapine at 2 years	> 8% patients on Clozapine at 2 years

Individual evidence-based practices	**1**	**2**	**3**	**4**	**5**
10. Patient psychoeducation: provision of at least 12 episodes of patient psychoeducation / illness management training delivered by appropriately trained clinicians, either to individuals or in group psychoeducation sessions	0-19% patients receive at least 12 episodes of psycho-education	20-39% patients receive at least 12 episodes of psycho-education	40-59% patients receive at least 12 episodes of psycho-education	60-79% patients receive at least 12 episodes of psycho-education	80+% patients receive at least 12 episodes of psycho-education
11. Family education and support: Provision of individual or group family education and support covering curriculum. At least 8 episodes delivered by appropriately trained clinician	0-19% families receive at least 8 episodes of family education & support	20-39% families receive at least 8 episodes of family education & support	40-59% families receive at least 8 episodes of family education & support	60-79% families receive at least 8 episodes of family education & support	80+% families receive at least 8 episodes of family education & support
12. Individual or group cognitive behaviour therapy (CBT), delivered by an appropriately trained professional, for treatment resistant positive symptoms, residual anxiety or depression: CBT is an evidence-based treatment that is indicated for treatment resistant positive symptoms, anxiety or depression after acute treatment of psychosis.	0-15 % patients participated in at least 10 sessions of CBT	16-20 % patients participated in at least 10 sessions of CBT	21-25 % patients participated in at least 10 sessions of CBT	26-30 % patients participated in at least 10 sessions of CBT	> 30 % patients participated in at least 10 sessions of CBT

Individual evidence-based practices	**1**	**2**	**3**	**4**	**5**
13. Individual and / or group interventions to prevent weight gain: at least 10 sessions to deliver evidence-based programs: nutritional counselling, cognitive behavioural therapy and exercise and medication options.	All patients have weight recorded. Feedback and weight management advice not pattern of practice	All patients have weight recorded. Feedback and weight management part of routine clinical discussions about health	0-19 % patients participated in at least 10 sessions of structured weight management program	20-29 % patients participated in at least 10 sessions of structured weight management program	> 30 % patients participated in at least 10 sessions of structured weight management program
14. Annual formal comprehensive assessment documented: includes assessment of: 1. Educational, occupational and social functioning; 2. Symptoms; 3. Psychosocial needs; 4. Risk assessment of harm to self or others; 5. Substance use; 6. Metabolic parameters (weight, glucose and lipids); and 7. Extrapyramidal side effects	7 assessment items found in 0 – 19 % of annual assessments	7 assessment items found in 20 -39% of annual assessments	7 assessment items found in 40 -59% of annual assessments	7 assessment items found in 60-79% of annual assessments	7 assessment items found in 80+% of annual assessments
15. Assigned psychiatrist: each patient has an assigned psychiatrist who sees patients up to once every two weeks as medications are being adjusted	Psychiatrist works with > 60 patients per 0.2 FTE	Psychiatrist works with 50 - 59 patients per 0.2 FTE	Psychiatrist works with 40 - 49 patients per 0.2FTE	Psychiatrist works with 30 - 39 patients per 0.2 FTE	Psychiatrist works with < 29 patients per 0.2 FTE

Individual evidence-based practices	**1**	**2**	**3**	**4**	**5**
16. Assignment of case manager: patient has an assigned professional who is identified as the person who delivers case management services	0-19% patients have an assigned case manager	20-39% patients have an assigned case manager	40-59% patients have an assigned case manager	60-79% patients have an assigned case manager	80 + % patients have an assigned case manager
17. Motivational enhancement or cognitive behavioural therapy for co-morbid substance use disorder (SUD: patient with co-morbid SUD receives 3 or more sessions of motivational enhancement (ME) or cognitive behaviour therapy (CBT)	0-19% patients with SUD receive at least three sessions of either ME or CBT	20-39% patients with SUD receive at least three sessions of either ME or CBT	40-59% patients with SUD receive at least three sessions of either ME or CBT	60-79% patients with SUD receive at least three sessions of either ME or CBT	80 + % patients with SUD receive at least three sessions of either ME or CBT
18. Supported employment (SE): SE is provided to patients interested in participating in competitive paid employment by employment specialist who is part of the FEPS team and works in a high fidelity SE service.	Program staff do not actively assess work interest of patients and do not encourage a return to work	Documented assessment of patient interest in work and encourage patients to apply for jobs	Documented referral to an employment program that does not provide high fidelity SE services	Documented assessment of work interest and referral to supported employment program that provides high fidelity SE services	Documented assessment of work interest engagement by SE specialist who is part of FEP team and provides high fidelity SE services

Individual evidence-based practices	**1**	**2**	**3**	**4**	**5**
19. Active engagement and retention: use of proactive outreach with community visits to reduce missed appointments, and engage individuals with FEP	0-9% of all patient and family visits are out-of-office to facilitate engagement	10-19% of all patient and family visits are out-of-office to facilitate engagement	20-29% of all patient and family visits are out-of-office to facilitate engagement	30-39% of all patient and family visits are out-of-office to facilitate engagement	>40 % of all patient and family visits are out-of-office to facilitate engagement
20. Community living skills: program works in the community, in addition to the office, to develop community living skills (i.e. Social activities, using transportation, renting, banking, budgeting, meal planning)	0-19% of patients receive community living skills training delivered in community setting	20-39 % of patients receive community living skills training delivered in community setting	40-59 % of patients receive community living skills training delivered in community setting	60-79 % of patients receive community living skills training delivered in community setting	>90 % of patients receive community living skills training delivered in community setting

Individual evidence-based practices	**1**	**2**	**3**	**4**	**5**
21. Crisis intervention services: FEP service delivers crisis services or has links to crisis response services including crisis lines, mobile response teams, urgent care centres or hospital emergency rooms	Team provides no crisis services to patient or family members. No out of hours services or formal linkages to out of hours services	Team provides telephone crisis support up to 8 hrs per day 5 days per week but no linkage to out of hours crisis services	Team provides telephone crisis support up to 8 hrs per day 5 days per week and linkage to out of hours crisis services such as crisis lines and urgent care centres or emergency rooms	Team provides in person crisis service up to 8 hrs per day, 5 days per week and linkage to out-of-hours crisis services such as crisis lines and urgent care centres or emergency rooms	Team provides in-person crisis support services 24 hrs per day, 7 days per week

Evidence-based team practices	**1**	**2**	**3**	**4**	**5**
22. Participant/provider ratio: Target ratio of active patient /provider i.e. Team members 20:1	51+ patients/ provider FTE	41-50 patients/ provider FTE	31-40 patients/ provider FTE	21-30 patients/ provider FTE	20 or fewer patients/ provider FTE
23. Practicing team leader: masters level team leader has administrative, supervisory responsibilities and has practical experience in delivering or still provides direct clinical services	Team leader provides only administrative managerial direction. No responsibility to ensure clinical supervision	Team leader provides administrative direction and ensures clinical supervision by others	Team leader provides administrative direction and supervision to some staff	Team leader provides administrative direction and supervision to all staff	Team leader provides administrative direction and supervision to all staff in addition to providing some direct clinical service

Evidence-based team practices	**1**	**2**	**3**	**4**	**5**
24. Psychiatrist role on team: psychiatrists are team members who attend team meetings, see patients with other clinicians and are accessible for consultation by team during the work week	Psychiatrist does not attend team meetings, sees patients in a separate location and does not share same team health record as FEP clinicians	Psychiatrist does not attend team meetings but sees patients at team location and shares team health records. Does not see patients with other program clinicians. Not available for consult	Psychiatrist attends team meetings, does not see patients with other clinicians. Shares team health record. Is not available for consultations with staff	Psychiatrist attends team meetings, sees patients with other clinicians. Shares team health record. Is not available for consultations with staff	Psychiatrist attends team meetings, sees patients with other clinicians, shares team health record and available for consultations with staff.
25. Multidisciplinary team: qualified professionals to provide both case management and specific service elements including: 1. Nursing services; 2. Evidence-based psychotherapy; 3. Addictions services; 4. SE; 5. Family education/ support; 6. Social/community living skills; 7. Case management	Team delivers 3 or fewer of listed elements	Team delivers 4 of listed elements	Team delivers 5 of listed elements	Team delivers 6 of listed elements	Team delivers 7 of listed elements
26. Duration of FEP program: mandate of FEP program is to provide service to patients for specified period of time.	FEP program serves patients for 1 year or less	FEP program serves patients for 1 to 2 years	FEP program serves patients for 2 to 3 years	FEP program serves patients for 3 to 4 years	FEP program serves patients for 4+ years
Evidence-based team practices	**1**	**2**	**3**	**4**	**5**
27. Weekly multi-disciplinary team meetings: all team members attend weekly meetings with focus on: 1. Case	No team	Monthly team	Bi-weekly team	Weekly team meetings with	Weekly team meetings with

review (admissions & discharges); 2. Assessment and treatment planning; 3. Discussion of complex cases; & 4. Termination of services	meetings held	meetings	meetings	less than all items covered	all items covered
28. Targeted health / social service/ community group: provision of information to first-contact individuals, in health, education social agencies and community organizations.	No targeted education	First contact community education is occurring less than 6 times a year	First contact community education is occurring 6 to 9 times a year	First contact community education is occurring 9-12 times per year	First contact community education which is occurring > 12 times a year
29. Communication between FEP and inpatient services: if there is hospitalization of individual currently enrolled in FEP service, FEP service staff contact inpatient staff to be involved in discharge planning and arranging outpatient follow-up	0-19% of FEP patients admitted to hospital are seen at FEP Service within 15 days of hospital discharge	20-39% of FEP patients admitted to hospital are seen at FEP Service within 15 days of hospital discharge	40-59% of FEP patients admitted to hospital are seen at FEP Service within 15 days of hospital discharge	60-79% of FEP patients admitted to hospital are seen at FEP Service within 15 days of hospital discharge	80+% of FEP patients admitted to hospital are seen at FEP Service within 15 days of hospital discharge

Evidence-based team practices	**1**	**2**	**3**	**4**	**5**
30. Explicit admission criteria: program has clearly identified mission to serve specific diagnostic groups and uses measurable and operationally defined criteria to select appropriate referrals. There exists a consistent process of screening and documenting uncertain cases and those with co-morbid substance use	< 60% population served meet admission criteria	60-69% population served meet admission criteria	70-79% population served meet admission criteria	80-89% population served meet admission criteria	> 90% population served meet admission criteria
31. Population served: program has a clearly identified mission to serve a specific geographic population and uses comparison of annual incidence and accepted cases to assess success in reaching all new incidence cases.	0-19% of incident cases are admitted to FEP service based on annual incidence of 20 per 100,000 aged 15 - 45	20-39% of incident cases are admitted to FEP service based on annual incidence of 20 per 100,000 aged 15 - 45	40-59%of incident cases are admitted to FEP service based on annual incidence of 20 per 100,000 aged 15 - 45	60-79% of incident cases are admitted to FEP service based on annual incidence of 20 per 100,000 aged 15 - 45	80+% of incident cases are admitted to FEP service based on annual incidence of 20 per 100,000 aged 15 - 45

Online Appendix
FEPS-FS Mean and standard error of component scores

Individual evidence-based practices	Item Score	
	Mean	Standard Error
1. Timely contact with referred individual: patient is offered an in-person appointment within two weeks of receiving referral	5	0
2. Patient and family involvement in assessments: service engages patient and family in initial assessment to improve quality of assessment and engagement	5	0
3. Comprehensive clinical assessment. Initial assessment includes: 1. Time course of symptoms, change in functioning and substance use; 2. Recent changes in behaviour; 3. Risk assessment risk to self/others; 4. Mental status exam; 5. Psychiatric history; 6. Premorbid functioning; 7. Co-morbid medical illness; 8. Co-morbid substance use; 9. Family history	4.88	.08
4. Psychosocial needs assessed for care plan: assess patient and family preference and incorporate into care plan needs related to: 1. Housing; 2. Employment; 3. Education; 4. Social support; 5. Finances; 6. Basic living skills; 7. Primary care access; 8. Social skills; 9. Family support; 10. Past trauma; 11. Legal	4.82	.13
5. Individualized clinical treatment plan after initial assessment: patients, family and staff develop individualized treatment plan using evidence-supported treatments addressing patient needs, goals and preferences (i.e. pharmacotherapy, psychotherapy addictions, mood problems suicide prevention, weight management)	4.71	.14

Individual evidence-based practices	Mean	Standard Error
6. Antipsychotic medication prescription: after diagnostic assessment confirms psychosis and need for pharmacotherapy, antipsychotic medication is prescribed after taking into consideration patient preference	4.82	.10
7. Antipsychotic dosing within recommendations: antipsychotic dosing is within government approved guidelines for second-generation antipsychotic medications and between 300 and 600 chlorpromazine equivalents for first-generation antipsychotics at 6 months	5	0
8. Guided antipsychotic dose reduction**:** patients who have had positive symptoms for more than one month and have achieved remission for at least one year are offered guided and monitored reduction of antipsychotic medication, some may discontinue medication. Ideally family or significant others are aware	4.12	.33
9. Clozapine for medication resistant symptoms: use of clozapine if individual does not respond adequately after two trials of antipsychotics (equivalent to 10 mg haloperidol, and over 3 month period), one of which is a second generation antipsychotic	2.18	.46
10. Patient psychoeducation: provision of at least 12 episodes of patient psychoeducation / illness management training delivered by appropriately trained clinicians, either to individuals or in group psychoeducation sessions	4.82	.13
11. Family education and support: Provision of individual or group family education and support covering curriculum. At least 8 episodes delivered by appropriately trained clinician	4.82	.13

Individual evidence-based practices	Mean	Standard Error
12. Individual or group cognitive behaviour therapy (CBT), delivered by an appropriately trained professional, for treatment resistant positive symptoms, residual anxiety or depression: CBT is an evidence- based treatment that is indicated for treatment resistant positive symptoms, anxiety or depression after acute treatment of psychosis.	3.29	.44
13. Individual and / or group interventions to prevent weight gain: at least 10 sessions to deliver evidence-based programs: nutritional counselling, cognitive behavioural therapy and exercise and medication options.	3.47	.32
14. Annual formal comprehensive assessment documented: includes assessment of: 1. Educational, occupational and social functioning; 2. Symptoms; 3. Psychosocial needs; 4. Risk assessment of harm to self or others; 5. Substance use; 6. Metabolic parameters (weight, glucose and lipids); and 7. Extrapyramidal side effects	4.65	.24
15. Assigned psychiatrist: each patient has an assigned psychiatrist who sees patients up to once every two weeks as medications are being adjusted	5	0
16. Assignment of case manager: patient has an assigned professional who is identified as the person who delivers case management services	5	0
17. Motivational enhancement or cognitive behavioural therapy for co-morbid substance use disorder (SUD: patient with co-morbid SUD receives 3 or more sessions of motivational enhancement (ME) or cognitive behaviour therapy (CBT)	4.59	.15
18. Supported employment (SE): SE is provided to patients interested in participating in competitive paid employment by employment specialist who is part of the FEPS team and works in a high fidelity SE service.	3.94	.38

Individual evidence-based practices	Mean	Standard Error
19. Active engagement and retention: use of proactive outreach with community visits to reduce missed appointments, and engage individuals with FEP	4.06	.36
20. Community living skills: program works in the community, in addition to the office, to develop community living skills (i.e. Social activities, using transportation, renting, banking, budgeting, meal planning)	4.24	.33
21. Crisis intervention services: FEP service delivers crisis services or has links to crisis response services including crisis lines, mobile response teams, urgent care centres or hospital emergency rooms	4.12	.15
23. Practicing team leader: masters level team leader has administrative, supervisory responsibilities and has practical experience in delivering or still provides direct clinical services	3	38
24. Psychiatrist role on team: psychiatrists are team members who attend team meetings, see patients with other clinicians and are accessible for consultation by team during the work week	**5**	0
25. Multidisciplinary team: qualified professionals to provide both case management and specific service elements including: 1. Nursing services; 2. Evidence-based psychotherapy; 3. Addictions services; 4. SE; 5. Family education/ support; 6. Social/community living skills; 7. Case management	4.29	.32
26. Duration of FEP program: mandate of FEP program is to provide service to patients for specified period of time.	2.82	.27

Evidence-based team practices	Mean	Standard Error
27. Weekly multi-disciplinary team meetings: all team members attend weekly meetings with focus on: 1. Case review (admissions & discharges); 2. Assessment and treatment planning; 3. Discussion of complex cases; & 4. Termination of services	4.94	.06
29. Communication between FEP and inpatient services: if there is hospitalization of individual currently enrolled in FEP service, FEP service staff contact inpatient staff to be involved in discharge planning and arranging outpatient follow-up	5	0
30. Explicit admission criteria: program has clearly identified mission to serve specific diagnostic groups and uses measurable and operationally defined criteria to select appropriate referrals. There exists a consistent process of screening and documenting uncertain cases and those with co-morbid substance use	5	0
31. Population served: program has a clearly identified mission to serve a specific geographic population and uses comparison of annual incidence and accepted cases to assess success in reaching all new incidence cases.	3.71	.22

Online Appendix

Four scale comparisons

Scale	Developmental Process	Rating System	Data Sources
EDEN	Expert Consensus two stages	Five point ratings for each item	Program self-report
EASA	Expert Committees	Five point ratings for each item	Two day fidelity visit
RAISE-C	Operationalize program implementation	Categorical	Program administrative data and client self-report
FEPS-FS	Systematic reviews, international expert consensus and testing	Five point ratings for each item	One day fidelity visit