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Adolescent schizophrenia: state of the art and proposals to improve transition management in Italy

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Summary. In mental health care, transition refers to the pathway of a young person from a child and adolescent mental health service (CAMHS) to an adult mental health service (AMHS). In Italy, the age of transition from adolescents to adults' mental health services is at the age of 18. Difficulties in transitioning have shown to favor patients' and families' disengagement and discontinuity of care with pharmacological treatment dropouts. On the other hand, a smooth and effective transition may improve the management of the disease and increase the chances of improvement of young schizophrenic patients. This project of roundtables, including child neuropsychiatrists (CNPs) and adult psychiatrists (Psy) throughout Italy, was aimed at exploring the problems of transition in clinical practice and collecting the proposals to improve transition management. The need to fill some cultural and organizational aspects strongly emerged to improve the transition process of adolescents with schizophrenia to adults' mental health services. On the one hand, specific training programs for both Psy and CNPs on the transition process are hoped for. On the other hand, both Psy and CNPs have expressed a need for shared official protocols, direct handover between the services including a period of shared management, and building of territorial multidisciplinary teams. All these aspects imply having a national mental health policy dedicated to taking charge of young people with mental health disorders, and accompanying them across the border between children and adults' mental health services. Improving transitional care can facilitate not only recovery but also prevention of mental illness for young people. Allocation of resources should aim at matching the epidemiological burden and reducing the heterogeneity between Italian regions.

Key words. Adolescent schizophrenia, early diagnosis, management of transition, pattern of care.

Schizofrenia adolescenziale: stato dell'arte e proposte per migliorare la gestione della transizione in Italia.

Riassunto. In Italia gli adolescenti affetti da schizofrenia a 18 anni devono passare dai servizi di neuropsichiatria infantile (NPI) ai servizi di psichiatria per adulti (PA). Tuttavia, la transizione non è automatica e le difficoltà del passaggio hanno dimostrato di favorire il drop-out dei pazienti e delle famiglie e la discontinuità delle cure, con interruzioni del trattamento farmacologico. Una transizione graduale ed efficace potrebbe invece migliorare la malattia e aumentare le possibilità di guarigione dei giovani malati di schizofrenia. Questo progetto di tavole rotonde territoriali sulla schizofrenia di transizione aveva l'obiettivo di approfondire i problemi riscontrati nella pratica clinica e di raccogliere le proposte per migliorare la gestione della transizione di un campione di specialisti territoriali in tutta Italia, che comprendeva psichiatri e neuropsichiatri infantili. Dagli specialisti del territorio è emersa forte la necessità di colmare alcuni aspetti culturali e organizzativi per migliorare il processo di transizione degli adolescenti con schizofrenia dai servizi di NPI a quelli di PA. Da una parte sono stati richiesti programmi di formazione specifici sia per psichiatri sia per neuropsichiatri infantili sul processo di transizione. Dall'altra, entrambi i tipi di specialisti hanno espresso la necessità di protocolli ufficiali condivisi, di un passaggio diretto tra i servizi, che comprenda un periodo di gestione condivisa, e della costruzione di team multidisciplinari territoriali. Tutti questi aspetti implicano una politica nazionale di salute mentale dedicata alla presa in carico dei giovani con disturbi psichiatrici e al loro accompagnamento attraverso il confine tra i servizi di NPI e PA. Il miglioramento della gestione della transizione può facilitare non solo la guarigione, ma anche la prevenzione delle malattie mentali nei giovani. Ci vorrebbe un'allocazione di risorse adeguata a far fronte all'impatto epidemiologico della schizofrenia a esordio precoce e a ridurre l'eterogeneità tra le regioni italiane.

Parole chiave. Esordio precoce, gestione della transizione, modelli di cura, schizofrenia dell'adolescente.

Background

Early-onset schizophrenia

Schizophrenia is a severe, chronic, and debilitating neuropsychiatric disorder with an estimated prevalence between 0.3 and 0.8%, affecting approximately 24 million people worldwide, mostly adults[1,2]. According to the latest Diagnostic and Statistical Manual of Mental Disorders (DSM-5), a schizophrenia diagnosis requires at least two of five main symptoms – delusions, hallucinations, disorganized language, disorganized or catatonic behavior, and negative symptoms – accompanied by socio-occupational or self-care impairment for a period of at least 6 months, with at least 1 month of active symptoms[3]. Substance dependence and abuse are high in these patients[4], and their life expectancy is reduced by 10-25 years. The symptomatic phase is typically preceded by a prodromal phase, characterized by non-specific behavioral changes or attenuated symptoms, which do not necessarily evolve into schizophrenia, but nevertheless may evolve into other forms of psychopathology[5].

Schizophrenia onset occurs most often during the second or third decade of life, but an earlier onset is not uncommon. A very recent meta-analysis reported that 12% of the cases of schizophrenia spectrum disorders emerge before age 18 (early onset schizophrenia, EOS) and 3% before age 14 (very EOS, VEOS)[6]. EOS presentation is not unlike the adult onset form, with disabling positive and negative symptoms, which may significantly improve over time the shorter the duration of the untreated psychosis (DUP), but in the early-onset form pre-and comorbid conditions are more frequent[7]. Adolescents and young adults with schizotypal personality disorder (SPD) are similar to prodromal adults on multiple measures, suggesting that SPD in young patients may be an independent risk syndrome for psychosis[5].

Regarding the pathogenesis, the "two-hit" hypothesis is currently accepted for schizophrenia, which says that the combination of genetic susceptibility and prenatal environmental influences (i.e., infections, diet, maternal immunity activation, etc.) can determine a neuropathological prime ("first hit"), while a later event, such as substance abuse, stress or traumatic experiences, social isolation ("second hit"), would lead to the onset of the full clinical syndrome. In other words, it is believed that multiple genetic factors interact with environmental factors affecting the development of the central nervous system (CNS) in a way that strongly predisposes to the disease[8-10]. More than 100 genes implicated in the pathogenesis of schizophrenia have been identified[11]. None of these genes cause the disorder *per se*, but when combined they increase the risk of developing the disease. These genes regulate neurodevelopment, so they are also implicated in other disorders, such as autism spectrum disorders (ASD), obsessive compulsive disorder (OCD), bipolar disorder (BD). This explains the high rates of "comorbidities", in terms of increased risk of schizophrenia in patients with ASD, as well as the mixed presentation with OC and mood symptoms. Swedish registries[12] show that patients with OCD (and to a lesser extent their relatives up to the third degree) have a 12-fold increased risk of comorbidities with schizophrenia, and a 13-fold increased risk of BD and schizoaffective disorder. The continuum between schizophrenia, BD and schizoaffective disorder has also been recognized by the DSM-5, which allows a series of symptoms, ranging from delusions, hallucinations to negative symptoms and affective symptoms, to be placed on one dimensional scale from 0 to 4[13]. The prevalence of some symptoms over others has strong clinical and prognostic implications, the best-evolving patients being those who have bipolar or depressive disorder psychoses[14]. Treatment implications of these characterizations are also evident.

In EOS, as in other neurodevelopmental disorders, continuous remodeling of the brain substrate occurs during adolescence. In fact, the dynamics of brain alterations in patients with EOS show a progressive readjustment, with a tendency of gray matter loss to shrink and circumscribe to prefrontal and temporal cortices[15]. Interestingly, this also happens in healthy siblings of subjects with EOS, who however tend to normalize early subtle gray matter deficits around the age of 18[16].

As for the prodromal phase of schizophrenia, the concept of ultra-high risk (UHR) has now entered clinical practice especially in adults, defined by criteria which have been validated internationally[2]: attenuated psychotic symptoms (APS), brief and limited intermittent psychotic symptoms (BLIPS), and genetic risk and deterioration syndrome (GRD)[17,18]. However, few data are available in adolescents and recent data seem to limit the prognostic impact of this definition. A meta-analysis conducted specifically in children and adolescents showed that transition rates to psychosis in individuals with At-Risk Mental State (ARMS) were very modest, with no evidence of an association between the diagnosis of ARMS and an increased risk of psychosis[19]. Great caution is therefore recommended in initiating drug therapies too early overestimating the actual predictive role of ARMS in adolescents, which needs a more "developmentally oriented" approach.

Among the predictors with positive prognostic significance, most important are the premorbid functioning, the prevalence of positive symptoms (and fewer negative symptoms), namely with acute onset

and precipitating stressors, the shorter Duration of Untreated Psychosis (DUP), and the association (in the patient and/or in the family history) with affective disorders[20].

The choice of pharmacological treatment for EOS may be challenging due to conflicting information from evidence and guidelines and the difficulty in balancing efficacy in symptom control and side effects, which requires the personalization of the treatment based on the characteristics of each individual patient[21]. While First Generation Antipsychotics (FGAs) are much less used, given their poorer tolerability, particularly in terms of sedation and Extrapyramidal Symptoms (EPS), there is currently a number of a Second Generation Antipsychotics (SGAs) available for schizophrenia that are used in children and adolescents, prevalently for non-psychotic disorders[22]. There are two classes of SGAs, the so-called "dones" and the "pines". The "dones" have a greater affinity for dopaminergic receptors, are at greater risk of EPS and a lower affinity for serotonin receptors; on the other hand, "pines" have a wider variety of receptor affinities, are at lower risk of EPS, but at greater risk of metabolic side effects[23]. There are, since 2002, when aripiprazole was firstly marketed, third generation antipsychotics, which exert partial agonism on all dopamine receptors, especially D2 and D3[24]. Unfortunately, a very recent critical review of the pharmacological treatment of EOS has shown that therapeutic needs are poorly covered and only partially met based on the evidence on currently available drugs[25]. A 2018 network meta-analysis concludes that all antipsychotics (APs), except ziprasidone, are more effective in symptom control than placebo, but less than clozapine[26]. However, clozapine cannot be the drug of first choice, given the safety problems and the need of frequent blood samples. It should always be considered in treatment-resistant schizophrenia, i.e., after at least two attempts with antipsychotics (adequate for dose, duration, and compliance) have failed to produce a significant clinical improvement.

Regarding safety, the same meta-analysis reported that molindone, lurasidone and ziprasidone have a more favorable tolerability profile, especially from a metabolic point of view.[26] A large meta-review on the safety of psychotropic drugs in children and adolescents with psychiatric disorders concluded that among APs, lurasidone has the safest profile[27]. Another meta-analysis assessed the efficacy and tolerability of lurasidone compared to other oral atypical AP monotherapies in adolescent schizophrenia, concluding that lurasidone was associated with similar efficacy, less weight gain, and lower risk of all-cause discontinuation compared to other medications[28]. Most of side effects of APs, namely metabolic, neurological and hormonal side effects, typically start early, in the first 3 months of treatment, then tend to decrease, but can persist for long time, so they must be managed over time.[29] The treatment of first-episode schizophrenia needs careful judgment, since it is known that the initial patient's experience with APs may have implications for future engagement, treatment adherence, and outcome[29]. The duration of AP treatment following a first episode of EOS is still debated. Different guidelines indicate a minimum of 1-2 years, others up to 5 years of therapy, and other fail to give any recommendation[30]. However, relapses are frequent in schizophrenia – up to 80% relapse rates within 5-years – and represent an unfavorable prognostic factor for long-term recovery[31]. Therefore, even though patients' and families' attitudes should be respected, it is absolutely advisable to wait at least a few years of patient well-being before considering discontinuing the AP and starting to (slowly) reduce its dosage. Individual prognostic factors influence the decision regarding the duration of treatment (premorbid functioning, prevalent positive symptoms, complete and rapid recovery), as well as the tolerability (mainly, weight gain and metabolic consequences). However, in these cases, a switch to better tolerated medications may be a valid alternative to the discontinuation.

It is worth remembering that, to date, in Italy only few selected APs can be prescribed in adolescent patients with schizophrenia. Haloperidol is a first generation antipsychotic approved for the treatment of schizophrenia starting from 13 years of age, albeit not as first-line drug; lurasidone (from age 13 to 17), oral aripiprazole, and oral paliperidone (15 years and older) were authorized by the Agenzia Italiana del Farmaco (AIFA) following their approval by the European Medicines Agency (EMA). Other APs, such as olanzapine and clozapine (from age 7 years), quetiapine (from age 12), and aripiprazole (from age 13), even though being not approved by EMA in adolescent schizophrenic subjects, can however be prescribed and are reimbursed (as "authorized off-label") according to Italian Law 648/1996 and subsequent specific AIFA Notes[32-38]. Risperidone did not obtain authorization by the AIFA for the treatment of adolescent schizophrenia but is still frequently prescribed based on the favorable results of controlled clinical trials[39].

Notably, lurasidone represents the first and, so far, unique AP that has been approved by EMA for treating adolescent schizophrenic patients across a broad age range (i.e., 13-17 years), since both oral aripiprazole and oral paliperidone received EMA approval for treatment of adolescent individuals with schizophrenia starting from 15 years of age. Lurasidone's approval in adolescent patients with schizophrenia is based on results from a multicentric, randomized, double-blind, placebo-controlled, 6-week study in schizophrenia adolescent patients (aged 13

to 17 years), and its related 2-year, open-label, extension study, which demonstrated lurasidone's short- and long-term favorable safety and efficacy profile in these patients[40,41].

Italian consensus on care for adolescents with schizophrenia

In 2021, the first Delphi-based consensus survey on patterns of care in adolescent schizophrenia took place in Italy. It involved child neuropsychiatrists (CNPs) and adult psychiatrists (Psy) with the aim of sharing evidence-based information on adolescent schizophrenia and assess the degree of consensus among professionals in four macro-areas, (I) early diagnosis, (II) pharmacological treatment, (III) health care system organization for transition process from adolescence to adulthood, and (IV) psychosocial interventions[42]. A board of 4 Psy and 4 CNPs, identified as Italian key opinion leaders, formulated 21 statements involving a total of 70 items needing clarification on EOS, which were then submitted to 86 experts in schizophrenia management among CNPs and Psy to assess their level of agreement, according to a two-round modified Delphi procedure. Consensus was obtained among the whole expert group on 67 items across all the investigated areas concerning patterns of care and management of adolescents with schizophrenia[42]. In particular, a high consensus was reached about early diagnosis and intervention; recognizing adolescents at risk of developing psychosis or in a prodromal phase, searching for other neurodevelopmental disorders and psychiatric comorbidities, and reducing DUP were deemed as crucial in improving prognosis. Regarding pharmacological treatment, the importance of choosing AP treatment based on the clinical characteristics of each individual patient was largely recognized, i.e., target symptoms, stage of disease, presence of medical comorbid conditions, and drug tolerability profile. There was also broad consensus on the advisability of integrating drug therapy with psychosocial interventions and on the criteria for switching from one AP to another, mainly poor tolerability and/or reduced efficacy. It also emerged that the overall patient's wellbeing should be a priority and that the perception of the subjective wellbeing in adolescents with psychosis is, for the most part, influenced by tolerability of APs rather than by their effectiveness on psychotic symptoms. However, it is worth noting that despite the high level of agreement among specialists the discussion revealed a significant gap between the acquired scientific knowledge and clinical practice. Despite the growing scientific literature on early-onset/adolescent schizophrenia management, it seems that such knowledge is not largely available in the real-world setting of mental health services. In particular, while the importance of an adequate organization of the health system to support the delicate transition process from adolescence to adulthood was pointed out, this need was considered largely unmet.

Transition from adolescent to adult psychiatric care

In mental health care, transition refers to the pathway of a young person from a child and adolescent mental health service (CAMHS) to an adult mental health service (AMHS). In Italy, adolescents with schizophrenia need to transition from CAMHS to AMHS at the age of 18. However, the transition is not automatic and the difficulties in transitioning have shown to favor patients' and families' disengagement and discontinuity of care with treatment dropouts[43,44]. Conversely, a smooth and effective transition may improve the disease and increase the chances of recovery of young schizophrenia patients[45]. The MILESTONE project analyzed through literature reviews and surveys the transition services and procedures existing across European countries, finding a great heterogeneity[43]. Written policies for managing the interface were only available in four countries, and 50% of countries did not have transition support services in place[46]. Furthermore, inadequacy of training programs in creating a shared culture and knowledge base between child and adult mental health professionals was generally complained[47].

The present project of territorial roundtables on transitional schizophrenia was born following the above-described Delphi-based consensus on adolescent schizophrenia. Since a wide gap had been highlighted between scientific knowledge and clinical practice, the aim of this further step was to bring the issue to the territory by exploring the problems encountered in clinical practice and collecting the proposals of a sample of territorial specialists throughout Italy, including Psy and CNPs.

Methods

The scientific board was composed by four academics, two Psy and two CNPs, who were in charge of formulating the questions and moderating the discussion. Three virtual roundtables were held, including a total of 10 Psy and 19 CNPs distributed throughout the country, selected based on at least 5 years of clinical experience in the management of adolescent schizophrenia; 14 worked in hospital wards and 15 in community services. The first roundtable included participants from Northern Italy (7 Psy and 4 CNPs), the second from Central Italy (3 Psy and 5 CNPs), and the third from Southern Italy (10 CNPs). Following an introduction by the board about transitional schizophrenia and the presentation of the results of the

consensus on patterns of care in adolescence, three subsequent questions were posed to the participants:

1. based on your experience, please list the main elements that may aid in early diagnosis and taking in charge of the adolescent patient with schizophrenia;

2. please list the factors that guide your choice of AP therapy in the adolescent patient with schizophrenia and what are the expected outcomes;

3. based on your personal experience, please list the key elements for an effective organization to manage the transition process of the adolescent patient with schizophrenia.

To encourage interactive discussion between all participants, the SLIDO function connected to the Microsoft Teams App was used, through which each participant could enter a brief answer to each question. Each participant could also insert a "like" to the comments of the other participants. After each question and answer round, all participants had the opportunity to explain and discuss their views among themselves and with the board members, who moderated the debate and summarized the proposals.

Results

Initiatives that may favor early diagnosis

- Appropriate training programs for general practitioners and pediatricians should be implemented to increase early identification of at-risk individuals, based on family and/or personal history of Autistic Spectrum Disorder (ASD), OCD, social anxiety disorder, the presence of premorbid developmental delays and current or previous stress exposure.
- Information campaigns in schools, youth sport and aggregation centers should be promoted to help identifying behavioral and mood changes attributable to disease onset.
- Appropriate information should be provided to families with positive familiarity for schizophrenia to raise awareness.
- Specific access desks in mental health centers should be dedicated to high-risk children, to be advertised in schools, sports centers, etc.

Initiatives that may favor early taking in charge

- Specific territorial services should be implemented for diagnosis and management of young psychiatric patients.
- Building territorial networks and creating dedicated outpatient clinics could facilitate the referral of young subjects at risk.
- The access to hospital for patients with acute onset should be facilitated, with places specifically dedicated to adolescents.
- Multidisciplinary teams including psychologists, educators, nurses, psychiatric rehabilitation technicians, and representatives of social services should be promptly available.
- Pharmacological treatment should be initiated as soon as the diagnosis has been made.
- Appropriate care for the young patient should provide different levels of intensity of care, with a smooth and non-traumatic transition between the different levels.

Criteria of choice of the antipsychotic drug

- Acceptable efficacy/tolerability balance; more focus on the safety profile (weight gain and metabolic status) if the patient's clinical history is not fully clear.
- Age of the patient.
- Sex may also be relevant in adolescence, from the endocrine-metabolic perspective.
- Type and severity of symptoms (negative, positive, cognitive; aggressive behavior; affective [depressive, manic, anxious] symptomatology).
- Disease phase (acute, post-acute, maintenance).
- Expected duration of treatment (at least two-three years).
- Clinical and pharmacological history; possible use of psychostimulants or any substances.
- Comorbidities (psychiatric and organic).
- Familiarity for psychiatric and organic diseases.
- Suicidal risk.
- Level of functioning.
- Patient and family compliance, social context.
- Patient's and family QoL.

Expected outcomes

- Regression of symptoms, especially the most acute ones.
- Improvement of functioning, social, cognitive, and work skills; return to school.
- Clinical remission or stabilization.
- QoL improvement.
- Recovery of autonomy.
- Recovery of adaptability and daily activities.
- Recovery of insight/ability to recognize early symptoms of relapse.

Key elements for an optimal organizational management of the transition process

- Shared well-defined protocols between psychiatrists and child neuropsychiatrists, definition of an operational flow-chart.
- Shared and structured management of relationships with patients and families.

- Implementation of specific transition services integrated with the other mental health services.
- Specific training of psychiatrists on neurodevelopmental disorders.
- Psy/CNP overlap for a defined period around the age of 18, with shared visits and direct handover.
- Building a transition team to promote a pharmacological and rehabilitative therapeutic continuum, also involving families.
- Bidirectional networking between hospital and territorial services.
- Computerization and intercommunication of systems between hospitals and territorial services.
- Family support services, including social services that can assist families with legislative and health procedures.
- Dedicated hospital beds for adolescents.
- Identification of a case manager.

For each topic, the two proposals entered by the highest number of participants in the SLIDO program were identified as priorities and summarized in table 1.

Discussion

EOS is associated with poorer outcomes than the adult-onset type and is more frequently associated with premorbid developmental disabilities and socio-communicative disturbances[48,49]. Length of DUP is related to a worse treatment response, symptom control and overall functional outcome; therefore, early diagnosis and prompt management are crucial in improving prognosis.

In all roundtables, the need for information campaigns disseminated to youth aggregation environments, including schools and sports centers, was identified as a major tool to promote early diagnosis. The discussants pointed out that these communication campaigns should never focus on disease, but rather on health, and the language should not be technical, but rather emotional. For example, some of the discussants reported positive experiences with sessions of film and readings. When addressing this topic with young people, the utmost attention must be paid to never label the pathology in order to avoid stigma and preserve the relational dynamics. Downstream of the information campaigns, the need may arise to refer a subject to specialists presenting him/her a clear path to access health services, which is not always possible, given the lack of territorial services. To prevent hospitalization for the youngest, more territorial facilities and resources are required and, when hospitalization becomes unavoidable, the young patient should be admitted to an adequate setting for deepening diagnostic investigations. It was agreed upon the fact that early identification of a case-manager who can take charge of the young patient, refer him/her to the hospital when needed and take him/her back after discharge would be very useful.

The working group expressed the belief that mental health professionals also need more information on transition. Training on transition-related topics could make clinical practice more efficient, resulting in increased patient adherence to therapies and possibly improved outcomes. The existing literature complains about gaps in transition teaching in many European countries, and claims the need for specific training on "transitional psychiatry" in the postgraduate curriculum[50,51]. A recent survey focusing on transition training revealed that practical and theoretical training on this topic is provided in only 28% and 17% of European countries respectively[52]. To best im-

Table 1. Priority proposals of the working group to improve the management of adolescent schizophrenia in Italy.

Proposal	Description
Initiatives to favor early diagnosis	▪ Organization of specific training programs for GPs and pediatricians to increase early identification of at-risk subjects. ▪ Promotion of information campaigns in schools, youth sport, and aggregation centers to help identifying behavioral and mood changes attributable to disease onset.
Initiatives to favor early taking in charge	▪ Implementation of specific territorial services for the diagnosis and management of adolescent psychiatric patients. ▪ Specific hospital access facilities for adolescent psychiatric patients.
Criteria of choice of the antipsychotic drug	▪ Efficacy/tolerability balance acceptable for each individual patient. ▪ Disease phase (acute, post-acute, maintenance).
Priority outcomes	▪ Regression of acute symptoms. ▪ Improvement of functioning.
Key elements to improve organization	▪ Shared well-defined protocols between CNPs and Psy. ▪ Specific training of Psy on neurodevelopmental disorders.

Legend: GPs= general practitioners; CNPs= child neuropsychiatrists; Psy= psychiatrists.

prove communication between CAMHS and AMHS, cross-training between CNPs and Psy has been proposed, which is even more effective when supported by practical training[50].

The discussion has pointed out that early diagnosis is not always followed by early treatment. Existing evidence recommends, once diagnosis is confirmed, prompt pharmacological therapy to prevent further deterioration[48]. Longer DUP and poorer premorbid adjustment are associated with poorer outcomes in children and adolescents with schizophrenia-spectrum psychosis[6]. Insidious onset and families' misjudgment of patients' disease were found to be major risk factors for a long DUP following a first episode of psychosis[53]. Once more, awareness plays an important role in prompt intervention for psychosis and the public needs more knowledge of mental illness for DUP to be reduced. On the other hand, early pharmacological intervention is appropriate provided the diagnosis of psychosis is certain, since drug therapy should not be given to prodromal patients. These patients should rather be offered cognitive, social, and family interventions and careful monitoring also of substance use. In particular, affective disorders could be particularly relevant clinical features, also in terms of differential diagnosis, and require monitoring that can sometimes prove useful to anticipate diagnosis and prognostic and clinical strategies[54]. All participants emphasized the role of rehabilitation and in particular the added value that psychiatric rehabilitation therapists, key figures for the transition, can give in collaboration with doctors and psychologists.

In Italy, there is a real problem of resources and organization of territorial services, although with high variability, with many geographical areas completely lacking hospital beds available for CNP, especially in Southern Italy. Providing resources to organize a structured transition should become a goal of local health authorities, and strong pressure to do so should be exerted at both regional and national level. The forthcoming realization of the project of the so-called "community houses" could represent an opportunity, provided that these structures are equipped with adequate staff capable of identifying patients at risk.

Decision making for EOS pharmacological treatment may be challenging due to conflicting information provided by evidence and guidelines. First of all, the discussants complained the scarce availability of drugs authorized for the pediatric age in Italy. This generates excessive off-label use of drugs unless compassionate use legislation is used. When choosing a drug therapy, it is very important to invest enough time in informing the patient and his/her family on the type of medication and to share expected outcomes and side effects. The first pharmacological experience greatly affects the patient's compliance; therefore, the more honest and comprehensive the information provided, the longer and more effective the therapeutic alliance will be. The board recommended the utmost attention to the individual biological vulnerability of each patient, especially with regard to metabolic disorders and the risk of obesity. A correct approach could be to initially focus on efficacy, even at the cost of a higher risk of undesirable effects, and then switch to a better tolerated drug if necessary. It is good to keep in mind the possibility of a therapeutic switch according to the disease phases. Importantly, therapy must always be respectful of the patient's QoL and should better be supported by early psychosocial interventions, because an articulated and comprehensive management approach allows to enhance the results.

Conclusions

From territorial Psy and CNPs strong emerged the need to fill some cultural and organizational aspects in order to smooth the transition of patients with EOS from CAMHS to AMHS. On the one hand, specific training programs for both Psy and CNPs on the transition process are hoped for. On the other hand, Psy and CNPs have expressed a need for shared official protocols, direct handover between CAMHS and AMHS including a period of shared management and building of territorial multidisciplinary teams. All these aspects imply having a national mental health policy dedicated to taking charge of young people with mental health disorders and accompanying them across the border between CAMHS and AMHS. Improving transitional care can facilitate not only recovery but also mental illness prevention for young people. Allocation of resources should aim at matching the epidemiological burden and reducing the heterogeneity between regions.

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