### Review

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# Community alternatives to acute inpatient care for severe psychiatric patients

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**Objectives.** Community psychiatry has mainly relied upon intermediate long term care services while there is a large gap between patient's needs and availability of acute care services. Taking this into consideration, the main aim of this paper is to review the evidence supporting the efficacy and feasibility of implementing the new models of care developed to fulfil the gap in the provision of community and hospital care for acute and severely ill patients. Finally the paper will propose a "care balanced approach" to integrate the key elements of the new alternatives of acute community and hospital care in the mental health system.

Material and Method. A review of the current literature was used to identify the key components of acute care for psychiatric illness. For this purpose Medline (1966-2010), EMBASE (1980-2010), and PsycINFO (1985-2010) databases were reviewed using key terms relating to assertive outreach, home treatment/crisis resolution, psychiatric acute day care, deinstitutionalization, Mental Health Service Models.

**Results.** Three main types of acute care have been identified: Acute Continuous Day Care (ACDC) –day hospitals –, Assertive Outreach Care (AOC) –Assertive Community and Assertive Outreach teams-, and Home Acute Care (HAC) –Crisis resolution, Home treatment teams-. The feasibility of these alternatives is supported by available evidence. Although these acute care alternatives may be complementary and could be combined for achieving a greater positive impact on the clinical and social recovery of the patients, there are usually implemented independently.

**Conclusions.** An integrative acute care subsystem combining these three strategies in a balanced care system

Correspondence: Dr. Javier Vázquez-Bourgon Department of Psychiatry University Hospital Marques de Valdecilla University of Cantabria Santander. Spain E-mail: javazquez@humv.es should be formally incorporated to the advanced community model in mental health care.

Key words: Community Mental Health Care, Mental Health Service Models, Balanced Care Model, Assertive Outreach, Home Acute Care, Crisis resolution/Home treatment, Acute Day Hospital, Acute Day Care

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## Alternativas comunitarias a la hospitalización de agudos para pacientes psiquiátricos graves

**Objetivos.** La psiguiatría comunitaria ha descansado principalmente en la utilización de dispositivos intermedios de salud metal de media y larga estancia. Persiste sin embargo en el sistema de salud mental un gran desequilibrio entre las necesidades asistenciales de los pacientes y la provisión de servicios comunitarios para el tratamiento de la patología psiquiátrica aguda y grave. Teniendo ésto en consideración, el objetivo principal de éste artículo es revisar la evidencia científica actual acerca de la eficacia y la viabilidad de implementar nuevos modelos de atención psiquiátrica que permitan llenar el vacío existente en la provisión de cuidados a los pacientes agudos y graves en la comunidad y en el medio hospitalario. El articulo, finalmente, propone un modelo de atención combinada y equilibrada (balanced care approach) en el que se integren de manera eficaz dentro del sistema de salud mental los elementos clave de las nuevas alternativas que se han desarrollado para el tratamiento de la patología mental aguda y grave tanto en el nivel hospitalario como comunitario.

Material y método. Se ha llevado a cabo una revisión de la literatura actual para identificar los elementos esenciales del tratamiento de la enfermedad psiquiátrica aguda y grave. Para ello se revisaron las bases de datos Medline (1966-2010), EMBASE (1980-2010) y PsycINFO (1985-2010) usando las palabras clave relacionadas con: Tratamiento Asertivo-comunitario; Tratamiento Domiciliario; Intervención en Crisis; "Hospital Psiquiátrico de Día, Agudo"; Desinstitucionalización; Modelos de Servicios de Salud Mental.

Resultados. Han sido identificados tres modalidades de atención psiguiátrica intensiva para el tratamiento de la patología psiquiátrica aguda y grave: Atención Intensiva y Continuada de Día (Acute Continuous Day Care -ACDC-), o también denominado "Hospital de Día de Agudos"; Atención Asertivo Comunitaria (Assertive Outreach Care -AOC-) y; Tratamiento Agudo Domiciliario (Home Acute Care -HAC-) que también incorpora Programas de Resolución de Crisis. La viabilidad y utilidad de implementar estas distintas alternativas de atención psiguiátrica intensiva a la patología psiguiátrica aguda y grave, está avalada por la evidencia científica existente. Sin embargo, en la revisión realizada se detectó que, aun cuando dichas alternativas de atención intensiva pueden ser consideradas como complementarias y podían por lo tanto combinarse para alcanzar una mayor eficacia en la recuperación clínica y social de los pacientes, lo cierto es que se implementan de manera independiente. No se dispone por lo tanto de evidencia científica acerca de la eficacia y viabilidad de un programa integrado de asistencia que incorpore los elementos clave de cada una de ellas.

**Conclusiones.** Con el fin de avanzar en el Modelo Comunitario de atención a la enfermedad mental sería preciso incorporar en el Sistema de Salud Mental un "Subsistema de Atención Aguda Intensiva e Integrada" en el que se combinaran de manera eficiente y equilibrada las estrategias de intervención señaladas.

Palabras clave: Salud Mental Comunitaria, Modelos de Servicio de Salud Mental, Atención Asertivo-Comunitaria, Asistencia Aguda Domiciliaria, Resolución de crisis, Tratamiento Psiquiátrico Domiciliario, Hospital Psiquiátrico de Día de Agudos

#### INTRODUCTION

The philosophy of psychiatric reform put forward in the early 70s was supported upon some key principles of community psychiatry.<sup>1</sup> These includes the provision in the mental health care system of : i) out-patient/ambulatory clinics; ii) community mental health teams; iii) acute inpatient care in the general hospital; iv) long-term residential care in the community; v) community services capable of providing to psychiatric patients afflicted by severe and chronic psychiatric diseases rehabilitation, occupational therapy and help with employment.<sup>2</sup> However, in most high income countries the psychiatric reform appears to have lost impulse over the years and after achieving the closure of a significant number of psychiatric hospitals the process has not been completed. We have to recognize, however, that thanks to the transformation impulse of the psychiatric reform a grate development of general hospital units for the acute care of psychiatric patients have occurred, together with a considerable growth of community mental health centres.<sup>3</sup> This growth of specific services, however, has not been accompanied by a sufficient implementation of additional community, and specialised acute in-patient, services for the intensive care of serious an acute mental illness. As the result of this, most western countries have currently insufficient and fragmented community services and the acute care of the severe mentally ill is still provided by traditional in-patient services, placed in psychiatric and general hospital settings.<sup>1</sup>

Thus, the current situation in the mental health provision of care in most western countries is unsatisfactory, being generally characterised by: i) the limited development of new, efficient and integrated intervention strategies for the treatment of acute and severe mental health patients in the community and/or hospital settings; ii) the insufficient growth of intermediate community services and of programs for the resettlement and long term care of persons with mental illness in society;<sup>3, 4</sup> iii) the lack of specific programs for individuals with particularly complex and severe psychiatric symptoms and disabilities in the community,<sup>5</sup> and finally; vi) the absence of support for the development of new services capable of meeting the mental health care needs of patients according to the phase of their mental disorder, with special disregard of the need to develop services and programmes for the early phases of mental illness.

These deficiencies have resulted in the inefficient use of traditional short-stay inpatient units, which have been forced to make inappropriate admissions and to prolong the length of hospital stay.<sup>6</sup> But probably more important than this is the lack of a proper provision of acute forms of community care for patients suffering from severe mental illness. This leads to the patients with acute and severe mental illness in the community being in a vulnerable situation, where their mental health needs are not properly met. This deficiency is still more evident if we consider that the available evidence shows that approximately 30% of patients with serious mental health problems drop out of contact with services. The lack of a proper therapeutic alliance and the care disengagement as a process is very complex in itself, and it is mediated by socio-demographic and clinical factors, but also by variables related to key issues of the provision of mental health care, such is the case of services accessibility, availability and acceptability.7 Thus, we could argue that a key factor in the patient's disengagement with current psychiatric services and treatment may be due to the lack of new and more acceptable strategies of acute and intensive care, both in the community and in in-patient settings.

In the last decades, new models of care have been proposed in an attempt to fulfil this important gap in the provision of acute care for severely ill patients. They represent novel and intermediate alternatives, between community and hospital acute care for patients with severe mental illness. The most important of these community alternatives are: Acute Day Care -ADC-, Assertive Outreach Care -AOC- and Home Acute Care oriented to Crisis Resolution -HAC-.8 The implementation of these facilities of intensive acute mental health care for acute and severe mental health patients would fill an important gap in the health service system, thus significantly improving the effectiveness of the care provided for severe mental disorders. In line with this goal in this article we will try to review the available evidence supporting the convenience and feasibility of implementing these community mental health care alternatives for the acute and intensive treatment of patients suffering from severe mental illness.

#### METHOD

A review of the current literature was used to identify the key components of acute care for psychiatric illness. For this purpose Medline (1966-2010), EMBASE (1980-2010), and PsycINFO (1985-2010) databases were reviewed using key terms relating to assertive outreach, home treatment/crisis resolution, psychiatric acute day care, deinstitutionalization, Mental Health Service Models. Based on the information provided in the literature, a critical analysis of the feasibility of integrating these mental health service alternatives in the provision of community acute mental health care for patients with severe mental illness was made. Finally a new model of integrating intensive acute care with community and hospital based mental health services is proposed.

#### ACUTE DAY CARE (ADC)

From a historical perspective, intensive day hospital care, using partial hospitalization of acute psychiatric patients in acute psychiatric day hospitals, was first described in the United States in the early 60s as one of the main components of community care. This proposal represented a very efficient and novel alternative to traditional inpatient hospital care.<sup>9</sup> The objective was to deliver personalised, intensive and structured health care in a service which combines the close supervision of a standard in-patient unit, with the maintenance of patients in the community through the use of a less restrictive environment. An additional main characteristic of these units was the possibility of applying, for the treatment of these psychiatric patients, a multi-disciplinary and

multimodal approach and the therapeutic use of the environment and time.

Although over the years the concept of "Day Hospital", or what should be more appropriate named "Day Care", has been used to denominate various different types of units, it is nowadays widely accepted that, regarding the care of severe mental illness, the concept of Day Hospital mainly refers to three types of services, which differ in structure and function: Acute Day Hospital as a high intensity service which provides continuous day care for acute patients as an alternative to the traditional acute hospital inpatient care and which allows admission just from the onset of the clinical episode; Acute Day Hospital as a service for facilitating early discharge from a hospital acute inpatient unit and which therefore only admit patients referred from these units and usually after a short evaluation and treatment on these units, and; finally, Day Hospital as nonacute day care unit, providing mental health care alternatives to other community services.

Over the years, many studies have suggested that acute and intensive day care, using a regime of partial hospitalization in an acute psychiatric day hospital, may be a viable alternative to fulltime or conventional acute inpatient treatment.<sup>10</sup> In this context the units providing "acute and intensive day care", usually through a community therapeutic model, could be alternatively located in a community setting or in a general hospital, but always in an intermediate position between community and "full time acute hospital inpatient" care. Thus, the objectives of this acute day form of care, for patients with acute and severe mental illness, should be to prevent admission into a full-time inpatient unit for those patients suitable to receive acute inpatient treatment in a closer contact with the community, and/or to shorten, through a policy of early discharges, the stay period in the conventional full time inpatient unit. The potential advantages of this form of "acute partial hospitalization care" for severe and acute psychiatric illness are several: First, it strengthens the patient's autonomy and links with the community; second, it reduces the risk of institutionalisation and the stigma associated to full time traditional inpatient care, and; lastly, it may provide a cheaper form of acute inpatient treatment for acute and severe mentally ill patients.<sup>11</sup>

In the last decades there have been several studies trying to establish the effectiveness of acute and intensive day care, applied through a partial hospitalization regimen, for the treatment of patients affected of acute and severe mental illness. For this purpose, most studies evaluated the outcome of patients treated on these units, in comparison with those treated in standard acute inpatient services. These studies tend to demonstrate that acute day care is a preferable alternative for at least one third of patients currently admitted to full time conventional inpatient services.<sup>12, 13</sup> In addition, a recent Cochrane review, as well as other more recent studies, indicate that the acute and partial intensive day care, provided in an acute psychiatric day hospital, is as effective as fulltime conventional inpatient hospital care, at least, with respect to symptoms recovery.<sup>10, 13, 14</sup> This has also been confirmed in a recent Multicenter Randomised Controlled Trial study across Europe.<sup>14</sup> The effectiveness of these units has been shown both at discharge,<sup>15</sup> and at the short-term (3 and 6 moths) and long-term (1 year) follow-ups.<sup>15-18</sup>

In addition, intensive day care provided in an acute psychiatric day hospital has not only proved to be beneficial for clinical recovery but also has a favourable impact on social recovery. In fact, the intensive day care provided in an acute psychiatric day hospital may produce superior results regarding social function, both at discharged and at long-term follow-ups, compared with conventional inpatient treatment in the majority of studies.<sup>10, 19</sup> It has also been shown that treatment on these units does not appear to be associated to a higher suicide risk for patients, an issue which has often been presented as a disadvantage for this sort of care.<sup>13</sup>

While in these units the symptoms recovery is at least similar to the one achieved in the standard forms of inpatient care, the patients treated at the acute day hospitals showed, in most studies, a more rapid improvement in their mental state than patients in standard in-patient forms of care.<sup>12-14</sup> In fact, it is generally accepted that there are no significant differences in the number of days patients remains admitted to acute-day hospitals when compared with those treated in standard in-patient units.<sup>12,</sup> <sup>14</sup> In addition, the readmission rates were similar for day and inpatient care.<sup>12, 19</sup>

From an economical perspective, acute and intensive day care, as it is provided in an acute psychiatric day hospital, has been shown to be less expensive than the care provided in a conventional acute psychiatric hospitalization service.<sup>13, 19, 20</sup> Although it has been described that the indirect costs of day care in a psychiatric day hospital may be higher than that the one derived of conventional inpatient care,<sup>11</sup> a recent Cochrane meta-analysis indicates that day hospital care leads to direct cost reductions, ranging from 21% to 37%, over inpatient care<sup>14</sup> and it is associated with overall reduction in costs.<sup>14, 12</sup>

From a more personal perspective it has also been shown that acute and severe psychiatric patients treated on an acute intensive day unit, expressed significantly higher treatment satisfaction at discharge, and even 1 year after being discharged, than those treated on conventional forms of acute in-patient care.<sup>13, 15, 19</sup> This higher satisfaction was also shared by their families, which also found that the acute day form of care entailed no increase on the burden on carers and families.<sup>13, 19, 21</sup> In addition it has also been shown that the subjective quality of life that was associated to this modality of intensive psychiatric care was not lower than the one provided in the standard forms of acute inpatient care.<sup>10</sup>

Thus, taking into consideration all the indicators we could defend that for those acute and severe psychiatric patients who do not need to be treated in a very restrictive environment, such as the one provided in the traditional "acute fulltime hospitalization unit", the acute form of care that it is provided in an acute psychiatric day hospital has many advantages and therefore should be the preferable option.

#### ASSERTIVE OUTREACH CARE (AOC)

Assertive community treatment (ACT) was first developed in the USA in the 1970s as a form of communitybased comprehensive care for people with severe mental illness, and with poor engagement with psychiatric services.<sup>22</sup> This model of care was intended as an alternative to hospitalization, incorporating a number of key elements. These include: a multidisciplinary and multi-modal team approach; the implementation of pro-active follow-up strategies directed to guarantee patient's treatment adherence; the provision of active programs of mental health promotion, mental health prevention and social care and, finally; direct provision of comprehensive health and social care and active programs in the community and out-of-hours. These programs also have a low staff-patient ratio, thus allowing the provision of intensive and frequent interventions in the community.23

In spite of its early successful implementation in other countries, a series of studies in the UK indicated that contextual and organizational factors had a great impact on the outcome of ACT, thus providing grounds for introducing changes on this strategy of care, which resulted in the configuration of the Assertive Outreach Care (AOC).<sup>24,</sup> <sup>25</sup> This way, the model of treatment implemented more widely in Europe -Assertive Outreach Care (AOC)- is slightly different in their practical elements, than the originally developed in USA; i.e. AOC teams do not have to have vocational experts or dual diagnosis expert on the staff, nor to provide 24 hour care, nor to have a limit of 1 to 12-15 cases per case manager. We have to stress, however, that despite these differences, the two models share the same principles and key elements of care. Thus we will present the evidences reported for both modalities of care together in this paper.

In a recent review Bond and colleagues identify that AOC has proven its effectiveness in guaranteeing in psychiatric patients treated in the community higher levels of treatment adherence. This was associated to a significant reduction of admissions to psychiatric hospitals, to the promotion of higher levels of independent living, and also to significant improvements in symptoms and quality of life.<sup>22</sup> Other authors have also shown a marked reduction in the admission rates and on the duration of hospitalization when an Assertive Outreach Care programme was established in an area.<sup>26, 27</sup> It has, in addition, been shown that the risk of admission into conventional acute inpatient units for the patients incorporated into these programmes decreased over time, indicating that the longer the patients were able to stay out of hospital, the more likely they were to remain in the community.<sup>28</sup> Similarly, Sutherby et al.<sup>29</sup> analysing naturalistic data from a 3-years follow-up, found that after setting up a specific AOC programme in an area, the rate of critical incidents and admission into acute inpatients units decreased gradually over the years, leading the caseload to a status of greater "stability". It was also seen that the team style of work adopted on these programmes changed over the time from having a main focus on treating patients on crisis to a more pro-active and preventive approach. Some of the key elements responsible for the improvement of outcome, included: having a dedicated consultant psychiatrist allocated to the programme; following a pro-active approach to the followup of patients; maintaining a daily supervision of the pharmacological treatment; stressing the focus on the care of patients who presented more frequent admissions and a higher risk of relapses and illness's complications, and; paying special attention to team coordination and specially to the interactions and communication between team members.29

The AOC effectiveness has been also demonstrated through clinical scales. The data obtained with these scales have demonstrated that the introduction of an assertive outreach care programme in a health area doubled the likelihood of reaching symptomatic remission criteria in patients affected by mental illness. Moreover this effect was particularly shown on the proportion of patients with higher scores on the BPRS,<sup>30</sup> which seems to indicate that this sort of intervention is especially effective on patients afflicted by severe psychiatric disturbances. We have to mention, however, that a randomised study comparing the clinical effectiveness of a newly established AOC teams and a traditional Community Mental Health Team (CMHT), in the treatment of difficult to engage patients, showed no differences in any of the outcomes measured, including rates of inpatient admissions and clinical and social outcomes.<sup>27</sup> These results, however, should be considered with caution due to the methodological deficiencies of the study. Among these deficiencies we should include a larger lost of patients in the follow-up of the control (CMHT) group, and above all the possible lack of expertise in the newly created AOC team selected for the study. The key features that may be mediating the effectiveness of AOC may be: an smaller caseload of patients per each case manager (between 15 and 20 patients per case manager); a high percentage of clinical contacts at home; the decision to assume responsibility for both health and social care, and; finally, the implementation of a multidisciplinary team approach with a psychiatrist integrated in the team.<sup>31, 32</sup>

Other positive aspect of Assertive Outreach Care is the higher levels of clients' satisfaction compared to the one shown by patients attended on other services. We have to stress that although the philosophy of the care provided on the AOC model has been previously challenged, on the grounds that it is coercive, the fact is that patients found very positive elements of this model of follow-up care. Among the positive aspects of the model the more significant are the usefulness and advantages of the support provided during the follow-up by the team members and also the emphasis on increasing patient's insight into the illness and on the needs of treatment. In fact these elements are considered to be crucial in the process by which compliance with the care plan was achieved.<sup>33</sup> It has, in this respect, been shown that in order to treat 'difficult to engage' patients it is important to have a comprehensive, multidisciplinary and multicomponent, care model with social and practical support and not an intervention model that exclusive focus on medication and treatment adherence. The presence of committed staff with sufficient time, and a stronger emphasis on the relationship with patients, has also proved to be beneficial.<sup>32</sup> Lastly, and as a conclusion, we should emphasize that the success of assertive outreach care programs is dependent on the availability of a committed and well trained multidisciplinary team, on the adequate provision of support for patients and on a sufficiently limited case-loads. The presence of these elements will allow the successful implementation of intensive, sophisticated, continuous and personalised case care.

#### HOME ACUTE CARE (HAC)

Similarly to the services discussed above the "Crisis resolution Teams" and the "Acute Home Treatment Teams", providing intensive acute home care, appeared in the 70s as an alternative to conventional inpatient hospital care,

for individuals with serious and acute mental illness. On this situation "Home Acute and Intensive Care" (HAC). integrating both assessment and treatment, aimed to provide efficacious and rapid clinical response to patients experimenting acute and severe psychiatric crisis, while being in the community. This is why the services providing this sort of care will be available 24 hours, or at least long working hours (e.g. from 8am to 8pm). This philosophy of extensive availability is essential and represents a clear improvement in the care provided for community patients. This is so as up to 21% of referrals occurred outside normal working hours.<sup>20</sup> It has been shown in this respect that guaranteeing twenty four hours availability on the service provision of psychiatric care has a significant impact on the successful management at home of patients affected by an acute and severe psychiatric episode in the community. Another benefit of this home care model is derived of the fact that a grate number of these patients find the treatment in conventional acute in-patient units more stigmatising. In this sense Harrison et al.<sup>20</sup> found that around a third of patients treated at home preferred not to be admitted to conventional acute in-patient units and also expressed their desire not to attend the outpatient clinic at all. The service implication of this attitude is reflected in the fact that 45% of all health contacts with these patients occurred at home.

The effectiveness of the acute and intensive home care provided by the "Crisis resolution/Home treatment teams" has been studied mostly focusing on the reduction in hospital admissions. According to a recent Cochrane systematic review acute home care is feasible and effective for about 55% of patients who should otherwise be admitted to a conventional inpatient unit. It has also been shown that this form of care seems to reduce costs and to increase the level of satisfaction of patients and families, being therefore more cost effective than conventional hospital care.<sup>34</sup> Thus, the authors concluded that the model of crisis intervention with intensive home care is a viable, effective, and acceptable model of community treatment for people with serious acute mental disturbances. In line with this, in a randomised controlled trial Johnson et al.35 found that those patients randomised to a crisis resolution home care programme were less likely to be admitted to hospital 8 weeks after the crisis. Later studies support these findings.<sup>36, 37</sup> It is important to highlight that this reduction in hospitalization appears in a more clear way if the home care teams take responsibility for both health and social care and also if they in addition make regular home visits, providing advice and support to the patient and family.<sup>26, 28</sup> Thus, based on these studies, we could conclude that the introduction of a "Home Acute Care" (HAC) strategy in an area is significantly associated with reductions in hospital admissions, being this reduction as high as a 37.5% of monthly admissions. In addition, it has been shown that the implementation of a crisis intervention strategy of care through the use of acute home treatment, increases patients symptomatic recovery, improves their social adaptation, and reduces family burden and also the stigma attached to psychiatric treatment, being as result of this strategy regarded as a more satisfactory form of care for both patients and families.

Although Home Acute Care (HAC) appears to be an effective community intervention, it should not be seen as an exclusive alternative to standard acute inpatient care,<sup>39</sup> neither it should be considered as an isolated treatment strategy. Pursuing the ideal of continuity of care and of optimizing the resources available, Crisis resolution/Home treatment could be regarded as a very useful tool in an integrated provision of care for severe and acute mentally ill patients in the community. According to this objective, Harrison and colleagues proposed the "Home Acute Care", which combines aspects of "Acute Psychiatric Day Hospital" and of "Intensive Home Treatment", as a good option for treating acute severely ill patients in the community.<sup>20</sup> The results of this study showed that, when compared to patients admitted to a standard acute inpatient unit, patients randomised to Acute Home Care spent less time in hospital over the 12-month follow-up. Moreover, the median duration of admission to the day hospital service was considerably longer than for the Home Option. This study took into consideration the secondary costs generated by each different service, and they found that the secondary costs for the Home Options were not significantly different than that of the inpatient and day hospital form of care.<sup>20</sup> The study also suggests that this new intervention model allows the treatment in the community of more severely ill patients than in an alternative hospital model.

#### AN INTEGRATIVE APPROACH TO THE PROVISION OF ACUTE AND INTENSE CARE FOR THE COMMUNITY TREATMENT OF PATIENTS WITH ACUTE AND SEVERE MENTAL ILLNESS

According to Thornicroft and Tansella,<sup>40</sup> both the evidence available so far and accumulated clinical experience, shows that the provision of acute and intensive mental health treatment for serious mental illness in hospital and community settings are not incompatible. Thus, as it has been defended by these authors and stressed in a recent editorial in the World Psychiatry Journal,<sup>41</sup> key elements of both hospital and community care should be integrated in the new service provision, following a "balanced care model".<sup>40, 41</sup> This approach could be applicable for the incorporation of the health service alternatives which we have previously discussed (i.e.: Acute

Day Care -ADC-; Assertive outreach care -AOC-; and Home Acute Care -HAC-) in an integrated system of acute care acting as a subsystem into the meso-level care system composed mainly of traditional in-patients unit, Community Mental Health Centres, other intermediate community services, community residential units and respite facilities. Therefore in this new and integrated health system the new alternatives of care that have been delineated in this article will be effectively and harmoniously integrated with the traditional provision of services. In this respect, the proposed "care balanced model", of integrating services, as it adopts a mental health planning philosophy of balanced integration of the different strategies of care, should be seen as an additive and sequential model. In this model, the health administrators, according to their resources, progressively develop and incorporate in the local health system new and more specialised units to build up an increasingly complex mental health model. The final objective of this integrative endeavour will be to provide a more complete, sophisticated and acceptable form of care to patients afflicted by acute and severe mental illness.<sup>2</sup>

The development of the balanced and integrated model would allow different services to operate as an integrated functional unit, in which the key elements of all of them would be effectively incorporated. This would facilitate the continuity of care and would stimulate the adoption of a holistic and flexible approach to the treatment of severely ill patients. In this scheme severe mental health patients could efficiently flow, according to their needs, from intensive acute community services, including the "acute day care unit", to a standard acute fulltime inpatient unit, and to finally disembark into a community services. This will ultimately ensure the development of more sophisticated and flexible alternatives for the community and hospital care of severe psychiatric patients.<sup>3</sup>

However, the need to optimize these new services may promote their evolution into more functional and flexible units which would combine key aspects of other units or models of care to provide more efficient forms of treatment at a lower cost and with greater levels of client's satisfaction. In line with this idea there have been, for example, recently changes in the clinical practice of acute day hospitals. These changes focus mainly on the convenience of making on them more emphasis, following the principles of the "assertive outreach model", on the proactive follow-up of patients who present a lower treatment adherence. Other experiences also promote in acute day hospitals the temporal use, for example in a situation of acute crisis, of the in-patient psychiatric units for the admissions of those patients during the weekends.<sup>21</sup>

The "Home Acute Care" alternative is a good example of the combination of different community care strategies for the intensive treatment of acute and severe cases of psychiatric disturbances. This approach combines key elements of the traditional form of home treatment with relevant clinical components of the acute day hospital.<sup>20</sup> This sort of combination in which elements of each of the models could alternatively predominate, according to the patient's needs, offer clear advantages for the treatment of patients, than the independent use of each of the alternatives. Thus, when compared with patients admitted to standard acute inpatient unit, patients randomised to this home option form of care expend lest time in hospital over 12-month follow-up. Moreover, it was also found that the median duration of admission to an Acute Day Hospital unit was considerably shorter when they incorporated key elements of the home intervention model. This study took into consideration the secondary costs generated by each different service, and found that the secondary costs for this combined home model of care were not significantly different than that of the inpatient and day hospital independent forms of care. We could therefore conclude saying that this combined strategy of intervention, combining key elements of acute day hospital and acute home treatment, allows treating in the community more severe and acute patients. Thus, it is clear that this sort of combination has proved to be more effective than the isolated use of acute day hospital and of the standard in-patients unit, without significant differences in costs.

Assertive outreach teams have also been reported to combine key elements of the other services. For example, it has been shown that a large number of Assertive outreach teams in London (20.8%) have incorporated the use of inpatient beds for their patients, and nearly a third of these teams (29%) retained some or full medical responsibility for all their patients during periods of admission to hospital.<sup>42</sup> We have to recognise that this clinical strategy of co-management could be more favourable implemented in an "intensive acute day care unit". This will have the additional advantage of facilitating the continuity of longterm care plans, prevent miscommunications between teams, and avoid the implementation of different approaches that may jeopardize the long-term care plan, as it may solve the fault-line in patient's care at the point of being admitted into acute full-time in-patient services. Thus we could defend that if acute-day care is efficiently combined with the treatment provided in other services such as the outreach services, or at the acute home treatment services, it could offer a powerful alternative to traditional inpatient and home acute care. This would allow implementing more efficient and acceptable strategies of mental health care for the treatment of acute and seriously

ill psychiatric patients, who tend not to comply with treatment.  $^{\mbox{\tiny 21}}$ 

Finally, we today dispose of sufficient scientific evidence demonstrating the clinical advantages of combining in a balanced approach the psychiatric care provided in an Acute Psychiatric Day Hospital with key elements of the Intensive Acute Home Care model and/or of the Assertive Outreach Model. In this integrative health system model the liaison with social care service tends also to be associated with reduced length of hospitalisation.<sup>26, 38</sup> Thus we could say that the social component brought up by the community mental health model and which may be successfully incorporated into the strategy of care of the services previously discussed is one of the major advantages of combining a community mental health approach to an balanced mental health integrated and service organization.

#### CONCLUSIONS

The current condition of mental health services in most high income countries, characterised largely by a lack of new alternatives to acute inpatient care and insufficient expansion of specialised community services for patients with severe mental illness, places some of the most needed psychiatric patients in a vulnerable condition.<sup>1</sup> This calls for the adoption of committed initiatives of service provision directed to guarantee intensive mental health inpatient and community care for the acute mentally ill. In this situation, present recommendations of mental health reforms should focus on the implementation of new service alternatives, the integration in the treatment programmes of health and social care packages, and also the enhancement of mental health prevention and coordination strategies.43 In addition, there are, even in the health system of advanced countries, considerable differences in the organisation of mental health care.<sup>1</sup> This situation is even more serious regarding the novel modalities of acute care, as alternative to conventional hospitalization, for patients with severe mental illness. Therefore a better understanding and implementation of the different alternatives of community acute mental health care and of their organization is also needed.

Acute community care in the form of Assertive Outreach, Acute Day Care and Home Acute Care (Crisis Resolution/Home Treatment), has proven to function in combination as effective alternatives to conventional acute hospital care. The integration of these novel alternatives of care would have a positive impact on the patient's clinical and social outcome, on the patient's satisfaction and with a non-increase in costs and family burden. Although scientific evidence supporting the effectiveness of these acute care community services does not consider their integration into a balanced care subsystem, the combinations of these strategies of acute care, following the model recommended in this paper is feasible. In fact, a full interconnection of these services between them, and with other non-acute care units, respite facilities and conventional inpatient and community services, through a balanced and integrated model, may increase the continuity of care, the optimization of resources and the effectiveness of the system.

We could finally conclude saying that the available evidence presented in this paper supports the convenience and feasibility of implementing these innovative mental health care alternatives for the acute treatment of patients suffering from severe mental illness in the community. Thus, the development of a local subsystem of acute care, integrating these novel alternatives of care with the traditional provision of services should become a priority in the strategy of meeting the current mental health gap, both in high income and medium income countries.<sup>44, 45</sup>

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None of the authors report any biomedical financial interest or potential conflicts of interest.

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