
Running an assertive community treatment team

Tom Burns & Louise Guest

In the 1960s, most people with severe mental illness were treated in large mental hospitals, receiving all their care under one roof, ensuring its continuity and accountability. Deinstitutionalisation resulted in discharge into the community, where care was fragmented between many agencies, making continuity and accountability very difficult. Countless individual programs were developed with few links between them. Not surprisingly, deinstitutionalised patients, in an unfamiliar environment and with poor coping skills to navigate services, did not receive the care they needed.

Case management became popular in the 1970s as “a method for ensuring that consumers are provided with whatever services they need in a coordinated, effective and efficient manner” (Intagliata, 1982). Intagliata’s review acknowledged that, although not a new concept, it had increased rapidly to ensure ‘continuity of care’. Various techniques for integration of services were tried, but most relied on a ‘systems agent’ or ‘case manager’ to coordinate resources for individual patients and to be accountable for their successful transit through the system. Case management services developed from this to promote service accessibility, integration and accountability.

Stein & Test (1980) evaluated their Program of Assertive Community Treatment (PACT; Box 1) as an alternative to in-patient mental hospital treatment for people suffering from severe mental illness. Chronically disabled patients had characteristic problems, such as being passive, interpersonally anxious and prone to develop severe symptoms, all of which made them likely to fail appointments. Hence their program needed to be ‘assertive’ – it must ‘go to’ the patient to prevent drop-out and

actively ensure continuity of care among treatment agencies.

The five components of their model were:

- material resources
- patient coping skills
- patient motivation to persevere
- patient freedom from pathologically dependent relationships
- support and education of community members involved with patients.

Without these, patients remained on the brink of rehospitalisation. Their study demonstrated reduced hospitalisation and gains in social functioning at equal, or possibly reduced, costs.

Solomon’s review identified four models of case management (Solomon, 1992). The ‘full support model’ was based on PACT, establishing the overlap of case management and assertive community treatment (ACT). Like the original PACT model, it aims to provide all necessary services, reducing

Box 1. Components of PACT

Assertive follow-up
In vivo approach
Small case-load size
Increased contact frequency
Support to family and carers
Emphasis on engagement
Provision of services within the team where possible
Liaison with other services when necessary

Tom Burns is Professor of Community Psychiatry at St George’s Hospital Medical School (Jenner Wing, Cranmer Terrace, London SW17 0RE). He is Clinical Director of the adult services for the South West London St George’s Hospital Mental Health Trust. For the past five years, he has run and researched the Wandsworth ACT Team. Louise Guest is a lecturer in Community Psychiatry at St George’s and Honorary Specialist Registrar for the Wandsworth ACT Team.

dependence on other community resources. It requires a team which contains essential disciplines such as nursing, occupational therapy, psychiatry and social work. It emphasises multi-disciplinary team-working (with the team holding responsibility for each patient), delivering care in the patient's home or neighbourhood (so-called '*in vivo*' approach) and assertive follow-up (reluctance to take no for an answer). Case managers have small case loads of around 10 patients, and are therefore able to offer frequent contact and intensity of care, including support to families and carers. Intensity of interventions is titrated against individual needs. Most USA services offer some form of 24-hour crisis availability.

Stein & Test's original study, and its subsequent replication by Hoult in Sidney (Hoult, 1986), demonstrated such impressive reductions in hospitalisation and costs that the service model spread rapidly and it is probably the world's most thoroughly researched mental health programme (Mueser *et al*, 1998; Burns & Santos, 1995; Solomon, 1992). However, the differences in favour of ACT have steadily declined in the USA (Mueser *et al*, 1998), and in Europe few studies have found intensive case management or ACT to make a significant difference to hospitalisation (Holloway *et al*, 1995; Thornicroft *et al*, 1998; UK700 Group, 1999). Currently, there is intense debate on whether this is because ACT is not properly applied in Europe (Marshall & Lockwood, 1998) – a failure in 'programme fidelity' (Teague *et al*, 1995) – or whether the control services in Europe contain many of the key features of ACT (Mueser *et al*, 1998; Burns & Priebe, 1996). There is probably an element of truth in both.

Despite such academic quibbles, the government has prioritised the establishment of ACT teams in its Modernisation Fund for mental health services. We have previously reported in this journal on the setting up of an ACT service (Kent & Burns, 1996). Here we describe its adaptation to inner-city National Health Service practice.

Who is ACT for?

Assertive community treatment is an expensive form of treatment and must be targeted at those who really need it. The research literature has demonstrated added value only for individuals with severe, relapsing psychoses who are already heavy users of the services ('revolving door' patients), often complicated by dual diagnosis or significant risk (Mueser *et al*, 1998). In the USA, it is promoted for

reducing hospital stays (and costs) but in the UK, its role in keeping difficult patients in contact with services has been emphasised. In reality, these two goals target the same patients and rely on the same practices.

Our team accepts patients from community mental health teams (CMHTs) who have an established psychosis of a minimum of two years and have had at least two (often more) admissions, the last admission being within the last year. We aim to target difficult-to-engage patients and, therefore, rarely accept them if in hostel placements. Severe risk associated with relapse can override these criteria. Our experience has taught us that we can help very unstable patients best, and have only a limited role with severely disabled but stable patients with psychosis. About 80% of our patients suffer from schizophrenia and 20% bipolar affective disorder. Most (60%) are male, in their late-30s on average, with 10 years of illness and about two years of lifetime hospitalisation. There is a substantial over-representation (28%) of Black patients. Most have a history of poor compliance with treatment and have had repeated admissions on a Section of the Mental Health Act. Our capacity of 100 patients meets the needs of six inner-city CMHTs, serving a population of 270 000.

The ACT team

The team includes a team leader, eight 'clinical case managers' (CCMs), junior doctors, a secretary and two consultant sessions. CCMs are so named to emphasise the full support, ACT approach. They have a case load size of 12 patients each. Most are mental health nurses, two are occupational therapists and one is a social worker. Initially, we attempted to keep the CCMs as part of the CMHTs to promote integration (Kent & Burns, 1996), but it proved impossible to achieve the level of coordination, skill development and cross-support needed. We now operate as an independent team, although individual CCMs link with individual CMHTs. Patients are still admitted to the care of the CMHT and this can give rise to understandable difficulties around prompt admission and discharge.

As far as possible, the staff operate as a 'real team' with team members acting as generalists. An occupational therapist may be required to detect medication side-effects, or a nurse to help patients structure their day or provide transport to a day centre. The CCMs all have core skills such as mental state examination, psychoeducation, a good understanding of the benefits system, and advocacy

skills. The team should not be too large. At one stage, the team was expanded to 13 CCMs. This proved dysfunctional. Too much time was absorbed in communication, CCMs could not get to know all the patients and the threshold for acceptance became too low, bringing in patients who really did not need such an intensive service. We think that 60–100 patients is optimal and 100 is just manageable.

Team routines

The team leader and one of the CCMs assess all referred patients before acceptance. In accordance with the Care Programme Approach (CPA) a care plan, involving both treatment and rehabilitation, is tailored to each individual patient's needs. Risk assessment and dangerousness on relapse are also formulated. The CPA includes regular assessment and re-evaluation of care, plus close monitoring of response to treatment.

Each patient has one CCM (or keyworker) allocated, and an identified secondary keyworker. While the team shares responsibility for planning and decision-making, including extensive cross-cover and a wide spread of involvement, the keyworker is ultimately responsible for regular contact and management of the patient on a day-to-day basis.

Handover

The team currently works Monday to Friday, 9–5. It meets at the start of each day for a brief (20 minutes) handover meeting, where all patients are mentioned and urgent problems discussed. Cover arrangements are also made for any absent CCMs. A doctor is usually present as there may be specific problems or a prescription needed. After this meeting, the team structures its own day with individual patient contacts, etc.

Reviews

One morning a week is occupied by the main team meeting, when routine CPA reviews are undertaken. Six patients are reviewed each week, enabling all to be fully reviewed at least twice a year. Current and long-term management are discussed, and the care plan reviewed. Impending discharge may be discussed. A contingency plan for each patient, which gives advice to external agencies on how to manage crisis presentations, is agreed by the team and recorded. This is circulated to the in-patient unit and Accident & Emergency department. It includes advice on appropriate medication, alternatives to admission if appropriate, and alerts the duty doctor

to the guaranteed availability of the CCM the next day by ringing the answerphone number.

At the end of this meeting, the team discusses all current in-patients and other current problems. One hour is allocated on rotation for business, audit, group supervision and professional development meetings. Like CMHTs, the team has at least one team day a year where procedures are reviewed and the operational policy updated.

Treatment and care

Key aspects of treatment and care are listed in Box 2.

Contact frequency

A caseload of 1 : 12 means that patients receive frequent visits. Most British keyworkers make between 15 and 20 visits a week and for ACT patients this means an average of nearly two contacts a week. We aim for this and insist on an interim review if contact falls below one visit a week for any extended period. Frequency is very variable, according to patient need. Building up to twice-weekly visits can take time, as many patients are shy and initially find this level of contact intrusive. Daily visits (and very rarely, more frequently) are common in times of crisis (particularly hypomania), to support a new activity (e.g. starting a day centre) or to monitor and administer oral antipsychotics. Contacts are often long and complex at the start of treatment, dealing with benefits, resolving disputes with neighbours or promoting engagement by leisure activities (e.g. taking the patient out to the cinema or to eat). With the passage of time, visits are generally shorter (less than an hour), planned and with an agreed focus. Joint visits are common when there are concerns around safety and to widen the patient's contact with the team.

Practical help

The ACT *in vivo* approach is eminently suited to identifying immediate, practical threats to a patient's survival in his or her own home. Rejection by neighbours or landlords, for example, can have devastating consequences for such patients, and CCMs must be willing to deal directly with the problem – not just to advise the patient or alert the relevant authorities. Maintaining personal hygiene and keeping their accommodation reasonably tidy and safe may require the CCM to work alongside

the patient in cleaning or even decorating. Such practical interventions have been some of the most appreciated by patients and have contributed to improved engagement and working alliance. Staff who dislike 'getting their hands dirty' do not thrive as CCMs.

Engagement

CCMs prioritise and spend extensive periods 'engaging' their patients. Many of our patients have little faith in the mental health system and avoid contact once discharged from the ward. This usually coincides with non-compliance with medication and relapse into psychosis. To prevent this, CCMs make themselves available to help patients in their activities of daily living, such as with gardening, decorating, laundry, transport and shopping. They will also pursue patients more assertively by visiting them in the community, at family centres, cafés, benefits offices, etc. In this way, they are more likely to maintain contact.

Medication

The team can provide daily 'observed' medication for patients. This is particularly useful for patients who are currently unwell or known to be poor compliers. It removes the debate over whether or not the patient is not taking, or not responding to, the medication. Although time-consuming, it is invaluable in avoiding admission in some patients, particularly with those on atypical neuroleptics. Currently, 12 of our 106 patients are maintained on clozapine and a further 60 on atypical drugs such as olanzapine and risperidone – despite past histories of poor compliance with oral medication.

Box 2. Treatment and care

Increased contact frequency
 Practical help with activities of daily living
 Engagement
 Medication
 Help with social security and finances
 Liaison between services
 Housing and placement
 Monitoring of mental state
 Family work
 Inreach

CCMs have trained in venepuncture and collect the necessary blood samples at the patient's home, reducing default from treatment.

Social security and finances

CCMs quickly learnt that a mastery of the benefit system was of enormous value to their patients, and this has substantially increased their income. Initial internal training courses were arranged from social services and the skills involved include budgeting, claiming benefits, directly managing money for patients and organising appointeeships. This both improves the patient's quality of life (although also resulting in some increased alcohol consumption) and also strengthens engagement. Patients soon appreciate that the CCM is on their side in a very concrete way.

Liaison between services

Coordinating the package of care the patient receives, both from within the team and from other agencies, is a key responsibility of the CCMs. Having a small case load facilitates good relationships with individual agencies, but the novelty of the role can require patience in obtaining cooperation – people know what a nurse or a doctor is, but not necessarily what a clinical case manager is.

Housing and placement

Great importance is attached to ensuring that patients are appropriately housed, and to supporting them, their carers and neighbours. CCMs will liaise with housing departments and landlords, and will become involved in the paying of rent and the claiming of housing benefit. Dealing with neighbours poses tricky ethical problems – it is simply unrealistic to exclude some neighbours from discussion of clinical matters as they may be at some risk, and as they may also be invaluable in alerting us to deterioration.

Monitoring of mental state

The ability to conduct a competent mental state examination and psychiatric assessment is a core skill of CCMs, allowing them to monitor their patients and respond to relapse as appropriate. We have found it useful to introduce structured assessments into our practice and this is discussed at greater length below.

Help with occupational activities

Open employment is not a realistic goal for many of our patients, but we aim to help them find some form of regular, meaningful or enjoyable, daytime activity. This ranges from day hospital day centres, supported employment, and voluntary employment to (rarely) paid employment. CCMs will liaise with staff in other agencies and employers and assist in any difficulties to support the placements. They may assist with transport to and from the workplace, either themselves or by negotiating taxis. Being flexible about transporting patients is a major contribution to their welfare – we have become aware of how often laboriously crafted and ambitious rehabilitation programmes flounder simply because of transport.

Family work and psychotherapies

Supporting families and carers of patients is given a high priority, and many family members come to rely on CCMs almost as much as the patients do. Helping a carer, even in a quite unrelated matter like giving an elderly mother a lift to the general practitioner (GP), can make an immense indirect contribution to a patient's well-being. Our CCMs are all being trained in psychosocial interventions including behavioural family management, cognitive strategies for psychotic symptoms and problem-solving approaches to adaptation to illness. Although these skills are valuable and currently very high profile, they do not constitute a major part of ACT work. Most family work is supportive and psychoeducational in content, rather than intensive, focused work on expressed emotion. Similarly, despite training in motivational interviewing, most compliance work is based on support, encouragement, reminding the patient to take tablets, dosette boxes, brief prescriptions and counting tablets. We have been surprised how much can be achieved by persistence with these simpler approaches with so-called 'impossible' patients.

Inreach

CCMs maintain close contact with their patients when they are admitted. Minimum contact is once a week, but often more frequent. Maintaining this contact is essential to ensure prompt discharge planning, and the CCM often organises and accompanies on trial leave from the ward. Attendance at the in-patient ward round is important for liaison.

Use of structured assessments

We have adopted the use of structured assessments of functioning (Box 3) for two reasons. First, working with patients over several years, there is a risk that very slow changes are missed – one adapts to them as they happen (Wooff & Goldberg, 1988). Using structured assessments alerts us to changes over time and can help track progress. Second, training to use them and discussing them in review meetings ensures consistency of core skills, and is a professionally neutral technique for remedying deficiencies in training. It avoids getting into ideological disputes about the value of different approaches.

All staff are trained in the use of the Health of the Nation Outcome Scale (HoNOS; Wing *et al*, 1998) and the Brief Psychiatric Rating Scale (BPRS; Overall & Gorham, 1962). The BPRS is particularly useful as all of our patients have psychotic symptoms. It is administered biannually, before the team review. In this way, patients' psychiatric symptomatology and progress is recorded in a quantifiable form and can be reviewed over time. Staff are also trained in the use of the Early Detection of Side-Effects Scale (EDOS; further details available from the author upon request) and assess and report extrapyramidal side-effects along with the BPRS.

Much emphasis is placed on the current care plan and on contingency plans which are agreed at the CPA meetings and distributed to all involved in the patient care. (These are currently restricted to two sides of a single A4 sheet.)

Discharge

The team has a finite number of places and, therefore, needs to discharge patients if it is to accept new referrals. Although there is no time limit on the availability of the ACT service, studies of the natural history of psychotic illnesses (Harding *et al*, 1987; Ciompi, 1988) predict a stabilisation over time. This

Box 3. Structured assessments

Monitor change over time
Track progress
Prevent adaptation to change as it happens
Improve training
Include: Brief Psychiatric Rating Scale, Early Detection of Side-Effects Scale and Health of the Nation Outcome Scales

is certainly what we are finding. Discharge from the team is, therefore, considered at the regular review, and a list of patients nearing discharge is established.

Reasons to consider discharge

The most frequent reason for discharge is that the patient has become stable, both clinically and socially. A minimum of two years without admission or major deterioration (e.g. requiring a period of daily contact) precedes consideration for discharge. Once proposed, a further six months at reduced contact is needed to test stability. Currently, we discharge just over one patient a month and try to stage acceptance of new patients so that extra attention can be spent on engaging them.

Patients may also fail to engage with the team, adamantly refusing any increase in contact beyond that they were used to on the CMHT. The team will persist for at least a year, using any available methods. Often this includes negotiating an activity that is 'useful' to the patient, such as shopping or transport, and using these opportunities for face-to-face contact to build a relationship over time.

Patients may be discharged prior to this if they are not able to receive the treatment, for instance, if they remain in-patients or are transferred directly from the ward to the forensic or rehabilitation services, or if they receive long prison sentences. Occasionally, patients without psychosis are mistakenly accepted and we attempt to get them back to the CMHT – but the process can, understandably, be slow if expectations have been raised.

Most patients are discharged to the CMHT, but occasionally direct to the GP if they are very well indeed or refuse any contact at all. There is usually a defined period of co-working between CCMs and CMHT keyworkers and most teams insist that the frequency of contact is weaned to once a month before transfer back. We have found that this period can drag out, to the patient's detriment, if not actively managed by the CCM.

Adapting the model

There are three major differences in the approach described here to that usually described in the American literature.

Case load size

ACT teams cite case loads of no more than 10 patients. We chose 12 because visiting such teams

in the USA, the first author found that many did in fact exceed 10 (confirmed in Meusser's review), and that a number of case managers with smaller case loads confided a series of reservations about them.

Team approach

What exactly is meant by a 'team approach' is hard to define. Although the whole team is involved in care planning and reviewing, our approach has a clearly identified keyworker as required by the CPA. How real a difference this is, in practice, from the pure model is uncertain.

Twenty-four-hour cover

The original PACT team offered staff coverage 24 hours a day – we do not. Our team works 9–5, Monday to Friday. The advantages of this approach are that the whole team meets daily, and liaison both within the team and with other agencies (who generally work 9–5) is facilitated. The disadvantage is that we are not available for out-of-hours crises, which (importantly, in the current climate) purchasers and user and family groups would like. Given the greater integration of services in Europe compared to the USA, we question whether a 24-hour service is cost-effective. Indeed, we audited out-of-hours provision for three months and found almost no use for it and no inappropriate admissions during this time. Our contingency plans have been used by out-of-hours services and may fulfil some of the functions of a 24-hour service (which in many services is limited to telephone advice and even an answerphone). We are not, however, satisfied with our 9–5, Monday to Friday service and are currently considering extending to a limited seven-day service.

Problems

Setting up a new team was not an easy business. Any new provision implies some deficiencies in current practice – in addition our team set up as a research intervention comparing ACT to standard CMHT care. Not surprisingly, there was suspicion of the team and its motives, highlighted by the initial need for randomisation and the requirement for increased data collection by CMHTs. We know that our experience is common to new services and it can make the initial period disheartening. It may have been intensified in our service because of our original attempt to keep the CCMs as full members of CMHTs, where they continually had to defend

their limited case loads. Most used the initial case load build-up time to help out and consolidate relationships. This has eased with the formation of the ACT team, but friction is still experienced around admissions and discharges – NHS staff are not yet comfortable with shared care. The current Mental Health Act exacerbates problems of shared care, with its rigid lines of responsibility. Negotiation between the in-patient and community teams can be delicate and requires sensitive handling.

Similarly, boundaries between patients and CCMs can become problematic. Patients are visited in their own homes, twice weekly, and given help with their activities of daily living. It is easy for this professional relationship to blur into friendship as it holds many of the qualities of friendship from the patient's perspective. Should you send Christmas and birthday cards? When does giving a lift extend beyond engagement to simple socialising or exploitation? Regular supervision, both with the team leader and as a group on a twice-monthly basis, is needed to manage these issues. Over time, staff who feel comfortable with exploring these ambiguous relationships have selected themselves for this work. Despite the reputations of many of our patients, this is not a job for a 'command and control' approach, and some early staff who anticipated this have moved on.

How much information can be shared with others is a persistent dilemma on this team. Refusing to discuss management with some neighbours, housing officers, family and friends can condemn the patient to relapse and rejection and may put others at risk. Standard professional guidance is of little value in the very special situations of such vulnerable individuals.

Another dilemma is the ethical balance between engagement and harassment. Most of our patients do not wish to be in contact with psychiatric services, quite apart from their difficulties in keeping appointments. To achieve assertive outreach may include visiting them, unannounced and without invitation, both at their homes and in their usual haunts – often when they have just 'sacked' us. There is a balance to be struck between enough contact and harassment – which will differ for each patient depending on his or her illness, dangerousness and attitudes to treatment. A negotiated compromise can sometimes be achieved, for instance, agreeing the number and place of contacts.

A balance also has to be struck between the patient-centred approach and the team approach, which will use evidence-based medicine to define its practice. Patients do not necessarily request the treatments that are the most effective. For example, we have a team policy of considering clozapine for all patients with schizophrenia who have not had a recent adequate trial.

Case vignettes

Vignette 1

Ms B is 48 years old and has suffered with recurrent manic episodes annually for six years. She does not like mental health workers and has usually refused follow-up. Since being with the ACT team, she has grudgingly accepted brief contact 2–3 times a week. Her relapse signature (preoccupation about her two girls and her tendency to dress flamboyantly) has been identified and talked through with her case manager. As a result of this, although she will not take lithium, she will accept haloperidol when imminent relapse is identified. The window of opportunity for intervening is very short (maximum of 3–4 days). For the past four years, she has successfully stayed out of hospital, although she has been moderately elated on four or five occasions. During these times, she has managed her life without reckless behaviour and grudgingly accepts our involvement.

Vignette 2

Leroy is a young West Indian man, with an extensive family history of schizophrenia, from which he has suffered for the past eight years. All of his breakdowns have been associated with violence, usually directed towards himself and his girlfriend, but occasionally to others. Getting him to accept the reality of his illness has been difficult and because of his interest in basketball, he will only take atypical antipsychotics, as he cannot tolerate the sluggishness caused by extrapyramidal side-effects. The case manager's dogged pursuit of the local authority housing department, resulting in Leroy being awarded his own flat through the mental health quota, and his help in getting Leroy onto a training course, have cemented the working alliance. On one breakdown, three years ago, he assaulted his case manager but they were able to talk this through while he was an in-patient (during which time Leroy tried to hang himself). Repeated reflection on the assault and the attempted suicide has been used by the case manager to enable Leroy to achieve a more realistic understanding of the severity of his illness and, from this, a greater willingness to cooperate with continued medication and monitoring. Leroy has remained out of hospital for the past three years and by moving into his flat (away from his girlfriend), established some stability in that relationship.

Outcomes and future development

As previously mentioned, the service described was set up as part of a national study which

compared ACT to standard community care in four sites (UK700 Group, 1999). This study did not find a significant difference in hospitalisation rates between the two groups. In our local service, this may reflect the disproportionate impact of 12 patients who remained in hospital and effectively never entered the service. For the rest, hospitalisation is significantly reduced and feedback from patients and carers is overwhelmingly positive. Numbers are too small to analyse but, clinically, we seem particularly successful with patients with severe bipolar disorder and with those patients with schizophrenia with very unstable mental states and 'a bad reputation'. It is with this latter group that the extended engagement seems to pay off. We have been careful to ensure that our team is ethnically diverse (although we have not striven for individual ethnic-matching) and it seems to be acceptable to Black African and African-Caribbean patients and families.

We have not resolved the issue of optimal integration with CMHTs. For ACT team efficiency, having our own beds and total independence would be easiest, but this would inhibit successful integration of care across the service and development of the CCM role. The original approach of having one or two CCMs as full members of CMHTs may be possible when the role is fully developed and accepted.

Much still needs to be achieved in understanding task prioritisation within such a team. We have begun to develop a shared hierarchy of obligations so that labour-intensive activities – such as crisis management, daily medicines, joint visiting and initiating patients on clozapine at home – can be easily organised. We recognise the need to evolve an extended-hours service with care at weekends, but there seem to be various possible models. With five years' experience of this service, we are confident that the main purpose of an extended service will be to enhance the quality of what we offer – for example, family support after work, contact and medication over weekends during crises – rather than to avoid crisis admissions. Indeed, we wonder whether crisis visits at night can be justified unless the patient is prepared to come to a safe location (the ward or Accident & Emergency). We hope to explore whether the atmosphere will be different out of hours and whether this can be exploited to extend the range of what we do.

The ACT approach needs to be treated with respect but not too much reverence. It clearly has much to offer a small, but important, group of patients – but work needs to be done in determining what is core to it and what is not. Times have moved on from the late-1970s in Wisconsin,

and a sceptical and scientific approach is needed for this service model. The UK now has an exciting possibility to advance ACT both clinically and academically.

References

- Burns, B. J. & Santos, A. B. (1995) Assertive community treatment: an update of randomized trials. *Psychiatric Services*, **46**, 669–675.
- Burns, T. & Priebe, S. (1996) Mental health care systems and their characteristics: a proposal. *Acta Psychiatrica Scandinavica*, **94**, 381–385.
- Ciampi, L. (1988) Learning from outcome studies toward a comprehensive biological-psychosocial understanding of schizophrenia. *Schizophrenia Research*, **1**, 373–384.
- Harding, C. M., Brooks, G. W., Ashikaga, T., et al (1987) The Vermont longitudinal study of persons with severe mental illness, II: Long-term outcome of subjects who retrospectively met DSM-III criteria for schizophrenia. *American Journal of Psychiatry*, **144**, 727–735.
- Holloway, F., Oliver, N., Collins, E., et al (1995) Case management: a critical review of the outcome literature. *European Psychiatry*, **10**, 113–128.
- Hoult, J. (1986) Community care of the acutely mentally ill. *British Journal of Psychiatry*, **149**, 137–144.
- Intagliata, J. (1982) Improving the quality of community care for the chronically mentally disabled: the role of case management. *Schizophrenia Bulletin*, **8**, 655–674.
- Kent, A. & Burns, T. (1996) Setting up an assertive community treatment service. *Advances in Psychiatric Treatment*, **2**, 143–150.
- Marshall, M. & Lockwood, A. (1998) Assertive Community Treatment for people with severe mental disorders (Cochrane Review). *The Cochrane Library* (3). Oxford: Update Software.
- Mueser, K. T., Bond, G. R., Drake, R. E., et al (1998) Models of community care for severe mental illness: a review of research on case management. *Schizophrenia Bulletin*, **24**, 37–74.
- Overall, J. E. & Gorham, D. L. (1962) The Brief Psychiatric Rating Scale. *Psychological Reports*, **10**, 799–812.
- Solomon, P. (1992) The efficacy of case management services for severely mentally disabled clients. *Community Mental Health Journal*, **28**, 163–180.
- Stein, L. I. & Test, M. A. (1980) Alternative to mental hospital treatment. I. Conceptual model, treatment program, and clinical evaluation. *Archives of General Psychiatry*, **37**, 392–397.
- Teague, G. B., Drake, R. E. & Ackerson, T. H. (1995) Evaluating use of continuous treatment teams for persons with mental illness and substance abuse. *Psychiatric Services*, **46**, 689–695.
- Thornicroft, G., Wykes, T., Holloway, F., et al (1998) From efficacy to effectiveness in community mental health services. PRISM Psychosis Study 10. *British Journal of Psychiatry*, **173**, 423–427.
- UK700 Group (1999) Comparison of intensive and standard case management for patients with psychosis. Rationale of the trial. *British Journal of Psychiatry*, **174**, 74–78.
- Wing, J. K., Beevor, A. S., Curtis, R. H., et al (1998) Health of the Nation Outcome Scales: research and development. *British Journal of Psychiatry*, **172**, 11–18.
- Wooff, K. & Goldberg, D. P. (1988) Further observations on the practice of community care in Salford. Differences between community psychiatric nurses and mental health social workers. *British Journal of Psychiatry*, **153**, 30–37.

Multiple choice questions

1. The five components of the original ACT model as described by Stein & Test (1980) include:
 - a patient motivation to persevere
 - b interpersonal psychotherapy
 - c ensuring daytime activity
 - d patient coping skills
 - e increased contact frequency.

2. Core skills of clinical case managers include:
 - a detection of medication side-effects
 - b prescription of medication
 - c advice on benefits
 - d mental state examination
 - e use of structured assessments.

3. Interventions by CCMs include:
 - a shopping
 - b decorating
 - c babysitting
 - d transport
 - e daily medication.

4. ACT adaptations for inner-London psychiatry include:
 - a 24-hour crisis intervention
 - b referrals from primary care
 - c team members emphasise their professional roles
 - d CCMs may be untrained health professionals
 - e engagement is prioritised.

5. The ACT team:
 - a keeps regular contact during in-patient admissions
 - b discharges patients who do not engage within six months
 - c has an ideal case load of 150 patients
 - d offers care to the stable chronically disabled patient
 - e accepts patients with a history of solvent misuse.

MCQ answers

1	2	3	4	5
a T	a T	a T	a F	a T
b F	b F	b T	b F	b F
c F	c T	c F	c F	c F
d T	d T	d T	d F	d F
e F	e T	e T	e T	e T