Civil Commitment Outcomes of Incompetent Defendants

Gwen A. Levitt, DO, Illa Vora, MD, Kelly Tyler, MD, Liliane Arenzon, MD, David Drachman, PhD, and Gilbert Ramos, MA

In Maricopa County, Arizona, most defendants who are found not competent and not restorable (NCNR) are admitted involuntarily to an acute-care inpatient hospital. Many of these patients would most likely not have met the State's usual admission criteria for acute inpatient care had they not been evaluated in relation to a criminal offense. Is this group treated differently from their peers who are not involved in the criminal justice system? We examined records for 293 NCNR admissions, retrospectively, to assess their admission status and the outcomes of their commitment. We compared them to 280 matched cases of patients admitted involuntarily from the community (non-NCNR). The NCNR group met fewer admission criteria and received court-ordered treatment (COT) 22 percent more often than did the non-NCNR patients. The NCNR patients had longer hospital stays despite being found less dangerous to themselves or others than the community sample. Results suggest that NCNR individuals are treated differently from non-NCNR patients.

J Am Acad Psychiatry Law 38:349–58, 2010

Maricopa County, Arizona (the greater Phoenix area), uses the *Dusky* standard[1] when considering a defendant's competency to stand trial (Rule 11[2]). An initial order for Rule 11 is granted by the judge presiding over a defendant's case when the question of competency arises. The case is transferred to a mental health court, a Rule 11 court, specifically designated to hear competency matters. Two court-appointed mental health experts are assigned to perform the evaluations. Defendants who are found incompetent to stand trial can be ordered to participate in a restoration to competency (RTC) program. Presently, there are three types of RTC options: an out-of-custody, community-based program; the county jail's medical division, an in-custody RTC program; and the Arizona State Hospital (ASH) program, which is open to defendants throughout the state. The average time for restoration, according to Rule 11 Court officials, is approximately 90 days.

Dr. Levitt is a forensic psychiatrist, Department of Psychiatry, Maricopa Integrated Health System and Maricopa County Superior Court, Phoenix, AZ. Drs. Vora, Tyler, and Arenzon are third-year psychiatry residents; Dr. Drachman is Biostatistician, Department of Research; and Mr. Ramos is Research Coordinator, Department of Psychiatry, Maricopa County Health System, Phoenix, AZ. Address correspondence to: Gwen A. Levitt, DO, 3104 East Camelback Road, Box 856, Phoenix, AZ 85016. E-mail: glevitt@cox.net.

Disclosures of financial or other potential conflicts of interest: None.

The "AAPL Guideline for the Forensic Psychiatric Evaluation of Competence to Stand Trial" cited information "estimating that 50,000 and 60,000 evaluations of competence to stand trial were completed annually in 1998 and 2000, respectively" (Ref. 3, p 1). In 2006, Maricopa County ordered 1,047 defendants to undergo Rule 11 evaluations.[4] Data from the 2000 Census showed that evaluations in Maricopa County represented 0.034 percent of the county population, whereas evaluations in the United States represented 0.018 percent of the U.S. population. The following dispositions were made in cases in process during 2006: Among the postcompetency evaluations, 34 percent were declared competent, 4 percent were dismissed, 33 percent were deemed not competent, and 29 percent were pending resolution. For the results after restoration (defendants found not competent), 49 percent were found competent, 2 percent were declared NCNR and released to the community, 14 percent were declared NCNR and mandated to undergo court-ordered evaluation, and 34 percent were pending resolution.

In Arizona, a person can be civilly committed under Arizona Revised Statute Title 36,[5] which states that any person with a mental disease, defined as "a substantial impairment of mood, thought process, memory or cognition" who is unable or unwilling to

accept treatment can be involuntarily placed in an acute-care psychiatric facility for up to 72 hours for an evaluation (commonly referred to as a court-ordered evaluation (COE)). This person must be either a danger to self (DTS), a danger to others (DTO), persistently or acutely disabled (PAD), or gravely disabled (GD). To complete the required legal documents to commit someone involuntarily, two witnesses must observe the behavior alleged in the petition. The prospective patient's behavior, witnesses' statements, and any known psychiatric history must be described in detail as part of the petition paperwork. The alleged DTS or DTO behavior must have occurred within the past 72 hours and must be considered an emergent situation, calling for immediate detention in a designated psychiatric facility. To be found DTS by the court in the civil commitment proceedings, the person must have attempted suicide or made a credible threat of suicide. A person who harmed another or made a credible threat to do so would be found DTO. PAD and GD petitions are considered nonemergent situations, can be processed over a two-week period, and can be completed on an outpatient basis.

Typically, most patients admitted for COE are individuals in the community who are known clients of the public mental health agencies. Usually, the patient is screened at one of two psychiatric emergency rooms in the area that are overseen by the Regional Behavioral Health Authority (RBHA). The RBHA is the federally and state funded mental health agency that oversees treatment for indigent patients. At these facilities, each patient is evaluated by a psychiatric provider, who makes a determination as to whether the patient meets the criteria for admission set forth by the state, which identifies dangerousness, psychosis, and impaired cognition and functional skills as reasons for acute inpatient care.

The County Attorney's Office determines whether to proceed with a COE on a defendant who is found NCNR. Unlike petitions completed in the community, the County Attorney's Office is not required to provide detailed documentation. Almost every NCNR COE is filed under all four standards (DTS, DTO, PAD, and GD), regardless of the person's present condition, mental status, or behavior. These patients are transferred directly from the jail to the hospital, with no intervening screening process. They are not reviewed at the time of the COE filing, to determine whether they meet the criteria for admission as outlined herein.

When the NCNR patient arrives at the hospital, the assessment team is faced with several difficulties. Because there is no requirement for documentation of behavior to support the COE, the team has to attempt to find information to support pursuing the commitment. The patient's alleged dangerous behavior often is related to his arrest, which very likely occurred many months ago. The patient would have been enrolled in the RTC program in the jail and received interventions and medication as part of the RTC treatment plan. As a result, these patients are often at or close to their baseline level of functioning and are far from being in an acute psychiatric state. Even if the patient had been acutely ill at the time of his arrest, when he may have displayed behavior that would constitute grounds for a COE, the situation occurred many months earlier and cannot be used as evidence in the commitment proceedings, as defined by statute.

The following is an example of a typical NCNR patient: A man in his mid 30s was arrested for aggravated assault on a police officer. He was known to have a serious mental illness and had been noncompliant with medication before his arrest. He presented at the jail disheveled and malodorous, with disorganized thoughts. He appeared to be paranoid and hallucinating. While in jail, he refused to take medication and remained psychotic. He refused to shower, hoarded items, and flooded his cell on occasion. He was ordered to undergo an in-custody Rule 11 evaluation after three months in jail. Two months later, he was found incompetent and was enrolled in the jail's RTC program. The judge ordered him, under Rule 11, to take medications. Once treated, he began to shower regularly and behaved in an increasingly appropriate manner. The man became less paranoid but still was very distracted by auditory hallucinations. After six months in restoration, he was found not restorable and sent to the hospital under COE.

As is obvious from this example, this patient was not currently (within the past 72 hours) DTO. The alleged assault, which was never proven in court, had occurred more than 11 months ago. There was no indication that he was or had been DTS. He was compliant with medication and treatment, performed his activities of daily living, and acted in an appropriate manner. His former disorganized pre-

sentation had not been noted for many months. Therefore, this individual may not meet the criteria for PAD and certainly not for GD.

After observing many cases of a similar nature, the research team began to ask whether NCNR patients were meeting admission criteria for acute hospitalization as they are applied to other, similar patients admitted from the community. If not, the team wondered, are the NCNR individuals being treated differently because they had criminal charges that could not be fully prosecuted?

There is limited information available as to how other jurisdictions address the NCNR defendant outside of dismissing the charges and returning the defendant to the community. The only item found in the literature, from the Michigan Department of Mental Health, in 1979, reported that 72 percent of the defendants found incompetent to stand trial were civilly committed.[6] Approximately 30 percent of the cases had their charges dismissed; another 0.9 percent had their order for restoration treatment expire and consequently were released. Another 7.2 percent were ordered to continue in the restoration treatment program.

Methods

Sampling Procedures

Before data collection, this study was reviewed and approved by the Maricopa Integrated Health System's Institutional Review Board. Data were collected from hospital admission records in two stages from 2003 to 2006. The target sample consisted of 300 NCNR cases referred by the county attorney's office for COE. The court provided a public record listing of the NCNR referrals and associated filing dates during those years. These NCNR referrals were queried against the hospital's electronic chart system to identify matches to actual admissions. Researchers then collected basic demographic, hospital course, and discharge data from the medical record. From this initial list, 293 cases were deemed eligible for the study. There were seven cases referred for COE in which there was no hospital admission or the filings were duplicates. Repeat NCNR admissions by the same patient in the study years were not excluded and were treated as unique admissions.

A comparison sample of non-NCNR admissions was selected and matched to the NCNR sample during the second stage of the data collection. The hospital's electronic medical record system provided a list of 10,199 psychiatric admissions during the study years, including basic demographic and diagnostic data. NCNR subjects were removed from the list, and a sample of 578 admissions was chosen for chart review to confirm the primary diagnosis.

Comparisons between the NCNR and non-NCNR groups can be misleading if the two groups differ strongly in certain background characteristics. If the two groups differ greatly in such traits as sex, age, or diagnostic category, any differences observed may be due to these differences rather than differences in the way that NCNR and non-NCNR cases are handled. Therefore, we decided to use a propensity score technique,[7] to match non-NCNR patients to NCNR patients who were similar in background characteristics. This technique helped to protect against the bias that can be introduced by these background characteristics.[8] First, a logistic regression analysis was utilized to estimate the probability that each patient belonged to the NCNR group, based on sex, age, and diagnostic category. These estimated probabilities, or propensity scores, were then sorted into quintiles. Next, within each quintile, equal numbers of NCNR and non-NCNR patients were selected for the final study sample. The final study sample consisted of 293 NCNR and 293 non-NCNR patients. Because data were missing for 13 of the non-NCNR cases, the final non-NCNR sample size was 280 individuals. This approach distills the group differences in sex, age, and diagnostic category into a single measure of these group differences: the propensity score. The NCNR and non-NCNR cases can then be matched on this one score, which is far easier than trying to find matches that are exactly equivalent on each of the three traits of age, sex, and diagnosis. Once the analysis was completed, we validated the approach by examining the two groups to see how similar they were on these three traits.[9]

The Arizona Department of Health Services, Division of Behavioral Health has created a standard Certificate of Need for Inpatient Care. It lists the criteria for admission and is utilized at Maricopa Integrated Health Services for every patient admitted to the psychiatric unit. This form was utilized in data collection.

Results

Table 1 compares the NCNR and non-NCNR patients in sex, age, and diagnostic groupings. The

Table 1 Demographic Profile of Study Subjects

	Non-NCNR	NCNR
Male, %	74	78
Average Age, y	37.4	37.6
Paranoid schizophrenia, %	25	28
Schizoaffective disorder, %	19	23
Bipolar one disorder, %	5	3
Mood disorder, %	4	2
Unspecified psychotic disorder, %	13	17
Other diagnosis, %*	34	27

The other category includes, among others, drug-induced states, personality disorders, uncommon forms of schizophrenia and mood disorders, dementia, mental retardation, adjustment disorders, anxiety disorders, and attention deficit disorder.

two groups were similar in these characteristics, providing evidence that the propensity score technique succeeded in creating demographically similar groups. Seventy-four percent of the NCNR patients were male, which is consistent with the typical disparity found in the incarcerated population. In the 2005 U.S. Department of Justice statistics, the male to female ratio was estimated to be 10 to 1 in correctional facilities.[10] The average age of our sample was the late 30s. The information about primary diagnosis was representative of the major illnesses typically seen in other community hospital settings.[11]

Among the NCNR patients, 45 different charges were recorded: 29 felonies, 16 misdemeanors, and 4 that could be categorized as either felony or misdemeanor. The majority (63%) of the NCNR patients were arrested on one charge, 21 percent on two charges, and 16 percent on three or more charges.

Tables 2 and 3 present a comparison of the outcomes of the COE process for both groups. Those in the NCNR group were more likely to receive COT

Table 2. Court-Ordered Treatment Status

	Non-NCNR		NCNR	
Status	Count	Percentage	Count	Percentage
Voluntary	69	25	39	13
Court-ordered treatment	193	69	247	84
Court-ordered evaluation dropped	10	4	6	2
Unclear/unknown	8	3	0	0
Total	280	100	293	100

Statistically significant difference (χ^2 with 1 $df = 23.72$, $p < .001$).

Table 3 Evaluation Status for Patients Receiving Court-Ordered Treatment

	Non-NCNR		NCNR			
	Count	Percentage	Count	Percentage	χ^2*	p*
Persistently or acutely disabled						
Absent	16	8	4	2	9.63	.002
Present	177	92	243	98		
Danger to self						
Absent	134	69	230	93	40.9	.0001
Present	59	31	17	7		
Danger to others						
Absent	134	69	232	94	44.7	.0001
Present	59	31	15	6		
Gravely disabled						
Absent	189	98	235	95	1.67	.196
Present	4	2	12	5		
Voluntary						
Absent	193	100	246	99.6	†	—
Present	0	0	1	0.4		
Amended court-ordered treatment						
Absent	184	96	246	99.6	†	—
Present	9	4	1	0.4		

* Yates' correction for continuity was used.
† Insufficient observations for significance testing.

Table 4 Length of Stay

	Non-NCNR (n = 280)		NCNR (n = 293)			
	Mean	Median	Mean	Median	U*	p*
Admission to discharge-ready	14.3	11.0	14.3	10.0	37926.5	.885
Discharge-ready to actual discharge	9.7	3.0	29.6	7.0	27832.5	.001
Total LOS	24.1	16.0	43.7	22.0	32276.0	.001

* Mann-Whitney U test results (for comparison of medians).

than were those in the non-NCNR group, and the non-NCNR group defendants were offered voluntary treatment more often than were those in the NCNR group.

Table 4 shows the length of stay for both sample groups. The stay was broken down into three categories: the length of stay from admission until determined discharge-ready, the time from being discharge-ready to the date of actual discharge, and total length of stay. The NCNR individuals were ready for discharge in approximately the same number of days (median, 10.0) as were the non-NCNR patients (median, 11.0); however, it took a median of 7.0 days to find placement for the NCNR patients, compared

Table 5 Admission Criteria Met

	Non-NCNR		NCNR			
Admission Criterion	Count	Percentage	Count	Percentage	χ^{2*}	p*
Suicidality						
Absent	129	46	292	100	211.19	.001
Present	151	54	0	0		
Violence						
Absent	190	68	293	100	109.31	.001
Present	90	32	0	0		
Threatening						
Absent	267	95	291	99	7.32	.007
Present	13	5	2	1		
Impulsivity						
Absent	280	100	290	99	1.25	.264
Present	0	0	3	1		
Hallucinations						
Absent	254	91	271	93	0.82	.365
Present	26	9	20	7		
Delusions						
Absent	162	58	221	76	20.33	.001
Present	118	42	70	24		
Weight loss						
Absent	277	99	292	100	.30	.584
Present	3	1	1	0		
Disability						
Absent	188	67	234	80	11.29	.001
Present	92	33	59	20		
Cognition						
Absent	255	91	260	89	.62	.431
Present	25	9	33	11		
Electroconvulsive therapy						
Absent	277	99	291	99	.00	1.00
Present	3	1	2	1		

* Yates' correction for continuity was used.

Table 6 Forced Medication

	Non-NCNR		NCNR			
Administered	Count	Percentage	Count	Percentage	χ^{2*}	p^*
No	254	91	282	96	6.37	.012
Yes	26	9	11	4		

* Yates' correction for continuity was used.

with 3.0 days for the non-NCNR population ($p = .001$). The team performed a separate analysis of cases of patients with exceptionally long stays, selected for stays of 50 days or longer. There were twice as many NCNR patients as non-NCNR individuals in this group.

The NCNR group met an average of 0.6 admission criteria (SD 0.8) compared with the non-NCNR group, which met 1.9 (SD 0.7) ($t_{(1,\ 564.1)} = 18.22$, $p < .001$). Table 5 displays the types of admission criteria met by both study groups. Most of the NCNR group met no criteria, whereas most of the non-NCNR group met one criterion or more. The most common criteria met by the NCNR group were delusions (24%) and disability (20%). The non-NCNR patients were admitted most often for suicidality (54%), delusions (47%), disability (33%), and violent ideation (32%). As shown in Table 6, the non-NCNR patients were more likely to be forcibly medicated than were the NCNR patients. The reason for medicating the patients involuntarily did not differ between the NCNR and non-NCNR groups (Table 7).

The research team also looked at the number of seclusion and restraint episodes and the length of time spent under these restrictions. The NCNR group had fewer and shorter episodes requiring seclusion and restraint than did the non-NCNR patients. A similar comparison was made for forced medication by injection, and the results demonstrated fewer interventions in the NCNR population.

Discussion

Admission Criteria

The initial hypothesis of this study was that many of the individuals in the NCNR group would never have been admitted to the hospital, but for the fact that the County Attorney's office petitioned for a COE. As previously stated, these COEs are not evaluated for their merits, as with the non-NCNR group, via a triage process at the local psychiatry emergency room. This, in and of itself, is evidence that the NCNR population is treated differently because of their criminal status. Over half of the NCNR group met no admission criteria, suggesting that had the NCNR patients undergone the same scrutiny as the non-NCNR patients at the time of admission, the NCNR patients would not have been admitted to an acute inpatient setting. Rather, an alternative course would have been pursued, such as a short-term stabilization unit, a transitional subacute-care program, community residential placement, or case management services.

In the NCNR individuals who met one or more of the criteria for admission, these were most often the criteria for psychosis and disability. This finding is not surprising, given the presence of chronic mental illness, and it can be explained by the fact that NCNR patients have been in a controlled setting for many months, even possibly in an acute inpatient jail psychiatric unit, before their transfer to the hospital. These individuals presumably have had no access to illicit drugs. For at least part of their incarceration, they would have been receiv-

Table 7 Reason for Forced Medication

	Non-NCNR		NCNR		
	Count	Percentage	Count	Percentage	p^*
No danger to self/others	7	27	0	0	.064
Danger to self/others	19	73	11	100	

* Fisher's exact test results (used due to small expected cell counts).

ing routine psychiatric medications as part of their treatment in the RTC program. They would have improved, stabilized, and reached their baseline level of functioning by this time. Therefore, many NCNR individuals should have far fewer needs that would require an acute inpatient stay.

The non-NCNR individuals, in contrast, had been in the community and had deteriorated to the point that they required civil commitment. These patients may have refused or discontinued taking their medication and may not have been attending their clinic appointments. Many were admitted with current drug and alcohol usage. The non-NCNR patients were acutely unstable, with a high percentage presenting, per admission criteria, with DTS or DTO ideation or both. The non-NCNR group almost always met at least one admission criterion.

Charges and Findings of Dangerousness

Charges faced by the NCNR patients ran the gamut from the most serious to the mundane, with the bulk of the cases designated as mid- to low-grade felonies. Of note, the findings in this study were not consistent with the findings of Heilbrun *et al.*,[12] who reported that forensic patients were restrained more often than civilly committed patients. The data from this study demonstrate that the NCNR individuals who have engaged in alleged criminal behavior were found by the treatment team, according to the admission criteria, not to be a danger to themselves or others. The patients in the non-NCNR group, on the other hand, were determined by the treatment team at admission to be DTS 54 percent of the time and DTO 32 percent of the time. The probate court's rulings in the civil commitment proceedings found the NCNR individuals to be a danger to themselves (7%) and others (6%) compared with the non-NCNR group who were found DTS 31 percent and DTO 31 percent of the time.

The Court-Ordered Treatment Process

The data from the COT process further support the contention that the NCNR group is treated differently. Despite meeting few or no admission criteria, the NCNR individuals received COT 22 percent more often than did the non-NCNR group. Miller *et al.*[13] found that treating physicians recommended inpatient civil commitment almost twice as often for forensic patients as for nonforensic ones. They reported that only one forensic patient was released at the initial hearing compared with seven of the civil group. One would presume the contrary, based on our data, since the NCNR patients were more stable at the time of admission, per the criteria, and were less prone to violence; few required forced medication and seclusion and restraint.

To explain the findings, one must consider the plight of the inpatient assessment team. The patient has been charged with one or more crimes, often felonies. The charges have been dismissed, no matter how serious or violent, because of the NCNR finding. The county attorney has requested a COE that has been granted by the superior court. How does the assessment team balance the concerns of protecting the community from a potentially violent individual, previous judicial involvement, and the liability faced by the doctor, the hospital and the courts? The treatment team allows the COE process to take its course, on most occasions, so that ultimately the probate court will make the final ruling as to whether this individual should be supervised in the community under COT. If the court dismisses the COT, the onus falls more on the court than on the treatment provider and the hospital. On rare occasions, usually in cases in which a very serious or violent crime is alleged, the county attorney attempts to refile the charges. However, due to the defendant's having been declared unrestorable, these cases eventually return to the Rule 11 court for relitigation of the question of competency and often are not successfully prosecuted.

The ultimate findings during COT also support the theory that the NCNR patient is treated differently. Most of the NCNR group was found to be PAD. PAD is the least rigorous standard to prove in a civil commitment hearing. Although we were unable to elucidate this finding in the present study, it is a common practice for many cases, especially PAD cases, to be submitted to the court to avoid a full hearing with testimony.

This process is especially helpful in the NCNR cases, in which witnesses may be hard to find or have very little information to provide in testimony as to the patient's behavior before admission. PAD reflects the chronic, impaired functioning of many patients with serious mental illness (SMI) and is a catchall standard.

Only half of the NCNR group patients, despite their more stable presentation on admission, were

allowed to pursue voluntary status compared with the non-NCNR group. Voluntary patients were free to sign out of the hospital and were released to the community without court supervision. There was great hesitation on the part of the treatment team to confer voluntary status. Typically, the status is granted only when there are no witnesses or evidence to support the COE. Only 15 NCNR patients were granted voluntary status in our study. Even though they may not have met the criteria for admission, these individuals were offered voluntary status only if they agreed to a continued hospital stay, to balance the concerns about public safety and liability.

The question remains as to whether pursuing an unsubstantiated or poorly substantiated COE, for the purposes of protection of the public and limiting liability, is a violation of the patient's constitutional rights. Two landmark cases may serve to address this query. In *Jackson v. Indiana*,[14] the petitioner was found incompetent and most likely not restorable as a result of mental retardation. The U.S. Supreme Court found his indefinite confinement to be unconstitutional because he was deprived of rights that were accorded to other committed patients who did not have pending legal charges. In Maricopa County, an NCNR defendant is referred for COE after a finding of incompetence, and his charges are dismissed. However, there is no psychiatric assessment performed to determine if the defendant truly meets criteria for civil commitment before the filing of the COE. With the knowledge that commitment continues to be pursued, even with little evidence and no witnesses to support the COE, it could be argued that the NCNR individuals are being denied their rights just as Mr. Jackson was.

Lake v. Cameron[15] is the second landmark case that relates to the situation in Maricopa County. The court addressed the concept that less restrictive alternatives should be considered in regard to placement options. Arizona incorporates the least-restrictive-alternative concept in determining the level of care and placement for all SMI individuals whether they are voluntarily or civilly committed. The process of automatically filing a COE on almost all NCNR individuals, many of whom do not meet criteria for admission, ignores the fact that this group may be placed in a much higher level of restriction than is necessary. Voluntary treatment is considered less restrictive than COT, yet NCNR patients are not given the opportunity to be voluntary patients as often as non-NCNR individuals.

Length of Stay and Placement

The NCNR group spent twice as long in the hospital as the non-NCNR patients, even though they were ready for discharge in the same length of time. (The discharge-ready date of 14 days often reflects the typical number of days between admission and the court hearing date.) Miller *et al.*[13] found that forensic patients spend four times longer in the hospital than do the civil patients. Their findings also demonstrated a correlation between length of stay of the forensic cases and the seriousness of the alleged crime. It comes as no surprise that in our study, the patients with the longest lengths of stay, over 50 days, had been charged with murder, child molestation, and arson.

In our study, the patients who had extended stays, past the discharge-ready date, were detained because of a lack of appropriate housing and no source of income. (Recall that those who are incarcerated for more than a few days automatically have their Social Security benefits discontinued.) Many patients lose their identification or proof of citizenship, which are required in Arizona to access state-funded medical and financial assistance. It is the policy of the RBHA and the hospital that SMI patients not be discharged to shelters, boarding homes, or motels unless all other options have been exhausted.

To compound matters, many apartment complexes have no-crime policies that preclude convicted felons from residing in their properties. Most of the mental health residential programs also use legal history as a criterion for acceptance. Being charged with a crime and being convicted of a crime are often seen as equivalent. These programs view NCNR individuals as high risk and do not want to take the chance of accepting them into one of their residences. Fire-setting and sex crimes are the two charges that almost guarantee refusal at a residential program and are often part of the formalized exclusion criteria in the placement's policies.

Several outliers in length of stay were related to transfers to the Arizona State Hospital (ASH). The number of beds at ASH is limited, and so, even if the patient is finally accepted, it may take several weeks to months to obtain a bed. Other types of placements that extend a patient's length of stay are for nursing homes and Department of Developmental Disabili-

ties housing. Mostly, these extensions are related to matters regarding benefits.

Study Limitations

The actual criteria form for admission, which is completed by the admitting doctor, is not held as part of the permanent medical record. In an attempt to limit the variability of this retrospective assessment as to what admission criteria were met by the patients, only the lead evaluator completed this portion of the data collection. For the purposes of this study, information from the admission progress notes, which rely heavily on the presenting mental status and reports of the patient's behavior as noted by staff and collateral sources just before and at the time of admission, was reviewed to make the determination as to the admission criteria.

There was some ambiguity in the estimation of readiness for discharge. An actual date that a patient was ready for discharge was not always found, and the researchers had to review physician and social service progress and staffing notes and treatment plans to determine this date, based on the resolution of symptoms, stability, and plans for placement and discharge.

Another limitation is that members of the non-NCNR group may have had contact with the legal system before or concurrent with the reviewed admission. The non-NCNR patients also may have had admissions after being found NCNR in years not included in the study. These prior admissions could have had an influence on their length of stay.

The matching process for selecting the non-NCNR group had some limitations. Because attempts were made to match the two groups only by age, sex, and diagnostic category, the possibility remains that the two groups differed on other key characteristics that could have affected the findings in the study.

Conclusion

This study demonstrated that NCNR individuals are treated differently from the matched non-NCNR patients. This may be related to the concern that the NCNR population poses a risk to the community. Mawbry states, "The data might suggest that the mental health system is being used somewhat inappropriately to remove particularly violent offenders from the public eye by postponing or eliminating their trial" (Ref. 6, p 38). Is this system of civilly committing almost all NCNR persons a back-door method of ensuring safety in the community by continuing the alleged offender's confinement, even for a few more weeks? That the inpatient assessment team and the probate judge are aware of the previously alleged charges inevitably colors their ultimate recommendations and order for COT. Miller *et al.*[13] found that concurrence rates for recommending COT, between the physician and the court, of the forensic population was actually higher than for the civil group.

In the early 1990s, it was rare for the hospital that participated in this study to receive NCNR patients. Several factors may have contributed, in part, to the development of the present process utilized in Maricopa County in addressing the NCNR individual. First, substantial revisions were made to the Rule 11 statute in 1994. Around that time as well, a formalized court forensic service team was put into place to handle the competency cases. Certainly, the exponential rise in the jail population, and consequently the number of SMI defendants, over the years has created an increased request for Rule 11 evaluations. This increase in SMI defendants has strained the already overwhelmed community mental health system, often pushing the burden of care onto the local hospitals and jails. Another factor may have been the relatively liberal civil commitment process employed in Arizona, especially in the use of PAD as a standard for COT.

In our communications with colleagues who specialize in the competency arena, we found that other jurisdictions report grappling with similar problems (personal communications, 2006: Stephen Golding, PhD, Department of Psychology, University of Utah, and Thomas Grisso, PhD, Departments of Psychology and Law and Psychiatry, University of Massachusetts Medical School). The COE process has been used as a route to obtain a longer term of treatment and confinement in certain high-profile or dangerous felony cases. A civil COT may be seen as a simpler and more expedient way to ensure forcible medication of an individual (with a plan to refile the charges at a later date), rather than attempting to use *Sell v. United States*[16] to obtain such an order. In *Sell*, the Court authorized the involuntary administration of antipsychotic medications to a mentally ill defendant to render him competent to stand trial. By virtue of a longer term of treatment, under COT, beyond what could be accomplished by an order for resto-

ration, the patient improves to such an extent that he can be deemed competent and the county attorney can refile legal charges and obtain a conviction. It is very likely that other counties have developed other strategies for dealing with this population, as this is clearly a problem faced throughout the country.

References

1. Dusky v. United States, 362 U.S. 402 (1960)
2. Ariz. Rules Crim. Proc. 11.1
3. Mossman D, Noffsinger SG, Ash P, *et al*: AAPL Guideline for the Forensic Psychiatric Evaluation of Competence to Stand Trial. J Am Acad Psychiatry Law 35:S3–72, 2007
4. Comprehensive Mental Health Court Progress Report: Fiscal Year 2006. Maricopa County Superior Court, August 14, 2006
5. Ariz. Rev. Stat. § 36:501
6. Mawbry CT: A study of patients treated incompetent to stand trial. Soc Psychiatry 14:31–9, 1979
7. Rosenbaum PR, Rubin DB: The central role of the propensity score in observational studies of causal effect. Biometrika 76:41–55, 1983
8. Rubin DB: Estimating causal effects from large data sets using propensity scores. Ann Intern Med 127:757–63, 1997
9. Shwartz M, Ash AS: Estimating the effect of an intervention from observational data, in Risk Adjustment for Measuring Outcomes. Edited by Iezzoni LI. Chicago: Health Administration Press, 2003, pp 275–95
10. U.S. Department of Justice: Criminal Offenders Statistics. February 14, 2005. Available at http://www.ojp.usdoj.gov/bjs/crimoff.htm. Accessed on October 15, 2007
11. MacArthur Research Network on Mental Health and the Law: The MacArthur Community Violence Study. April 2001. Available at http://www.macarthur.virginia.edu/violence.html. Accessed on October 15, 2007
12. Heilbrun K, Golloway G, Shokry V, *et al*: Physical control of patients on an inpatient setting: forensic vs. civil population. Psychiatr Q 66:1–13, 1995
13. Miller RD, Iomescu-Pioggia R, Fiddleman P: Judicial oversight of release of patients committed after being found not competent to stand trial or not guilty by reason of insanity in violent crimes. J Forensic Sci 28:839–45, 1983
14. Jackson v. Indiana, 406 U.S. 715 (1972)
15. Lake v. Cameron, 364 F.2d 657 (D.C. Cir. 1966)
16. Sell v. United States, 539 U.S. 166 (2003)