

Coding of Pediatric Behavioral and Mental Disorders

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ABSTRACT. *Background.* In response to changing reimbursement and other pressures in the health care environment, many physicians have reported the use of alternate coding to substitute for certain clinical diagnoses. However, very little information is available on how physicians who care for children approach diagnosis and coding dilemmas for behavioral and mental disorders, which often present unique additional challenges.

Objective. Our study sought to describe the frequency of alternate coding, different approaches to coding, and attitudes toward diagnosis and coding practices by physician specialty.

Methods. We conducted a mail survey of 1492 physicians—497 developmental/behavioral pediatricians (DBP), 500 pediatricians (PED), and 495 child and adolescent psychiatrists (PSY). The main outcomes were survey items on frequency of alternate coding (never, rarely, monthly, weekly, daily), use of different coding strategies (use of somatic symptoms, modifiers, and substitution with other terms), and attitudes on coding practices (Likert scales of agreement). We analyzed outcomes by physician specialty and demographics using Pearson's χ^2 and multivariate logistic regression.

Results. Overall response rate was 62% (787 of 1269 eligible physicians). The majority of physicians had used an alternate code (DBP 83%, PED 68%, PSY 58%), and many respondents reported monthly-daily alternate coding (DBP 60%, PED 36%, PSY 27%). Physicians used multiple approaches to diagnosis and a variety of coding options, which varied by physician specialty. Financial issues were commonly cited reasons for alternate coding—both to obtain patient services and to receive physician reimbursement. However, challenges of diagnostic classification and coding subthreshold symptoms were cited as frequently as reimbursement issues. Stigmatization, confidentiality, and parental acceptance were mentioned, but reported less frequently. Very few practices and providers have organized administrative methods of alternate coding (26%) or receive feedback on denied claims (46%). Most physicians believe that alternate coding is justified in the present system; however, some physicians expressed concerns that these practices may

contribute to stigmatization or lead to improper management decisions.

Conclusions. Alternate coding is commonly reported; however, approaches to diagnostic coding vary by provider specialty. Reimbursement issues are important, but other challenges in diagnosis and classification hold special relevance to children with behavioral and mental disorders. There seems to be a great need to reconsider the separate goals and uses of clinical diagnosis and administrative coding. Additional study is needed to assess how reported coding practices may affect administrative data, patient care, and health care economics. *Pediatrics* 2002;110(1). URL: <http://www.pediatrics.org/cgi/content/full/110/1/e8>; diagnosis, medical practice management, reimbursement, medical records, insurance claim reporting, mental health services.

ABBREVIATIONS. DBP, developmental/behavioral pediatricians; PED, pediatricians; PSY, child and adolescent psychiatrists; DSM, *Diagnostic and Statistical Manual*; OR, odds ratio, CI, confidence interval.

Health care has undergone dramatic changes in organization, administration, and financing in recent years. Shifts in legislation and payer policies have affected coverage of patient services, insurability, physician reimbursement, and several other important aspects of health care.¹⁻³ In response to multiple pressures, physicians have reported changes in practice administration, billing, and coding of clinical diagnoses.^{4,5} Some examples include documenting suicidal behavior, although the patient did not report this, to obtain an urgent psychiatric assessment; deliberate misdiagnosis of depression and substitution with another code; and overstating severity of symptoms to obtain managed care coverage for cardiac surgery.^{5,6} Miscoding, gaming, and substitution with alternate diagnostic codes are methods that some physicians use to obtain patient services or additional reimbursement, or to attempt to minimize stigma of a diagnosis.⁵⁻⁷ At an extreme, coding may involve deception and potential fraud that calls professional ethics into question.⁸⁻¹³ However, many physicians believe that they are advocating for patients or adopting coding mechanisms that are encouraged in the present system.^{10,13-16} Diagnosis and coding practices have important implications for medical records, administrative claims, treatment decisions, and economic aspects of medicine.¹⁷⁻²⁰

Previous studies, primarily on adult patient providers, have described coding and diagnosis with regard to determination of necessary services, definition of experimental therapies, scope of prescrip-

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tion coverage, and patient confidentiality.^{5,9,10,20,21} A few studies in adult patients with depression, suicide, and other conditions have demonstrated the unique issues that arise for mental health problems.^{6,7,20,22,23} However, very little information is available for children. Given the challenges of diagnosis related to early expression of mental disorders, changing developmental stages in children, and different payer coverage of mental health services, we hypothesized that the use of alternate diagnostic codes is common and that providers face unique dilemmas related to the coding of children with mental health conditions.^{24–26}

Our goals were 1) to describe how often alternate diagnostic codes are used for children with behavioral and mental conditions, 2) to explore the reported methods of coding and diagnosis for these disorders, and 3) to understand provider attitudes on coding and associations of different coding strategies by provider type. We hoped that our study could help transform discussions from a “gaming the system” approach to a focus on better patient care, greater validity of administrative claims, and more rational reimbursement decision-making.

METHODS

We conducted a mail survey of physicians most commonly involved in the diagnosis and management of behavioral and mental disorders—developmental/behavioral pediatricians (DBP), pediatricians (PED), and child and adolescent psychiatrists (PSY). We requested a mailing list from the Society of Developmental and Behavioral Pediatrics for all DBPs. A comparable number of pediatricians were randomly selected from 5 states representing different geographic areas of the country, and psychiatrists were randomly selected from the American Academy of Child and Adolescent Psychiatry mailing list. We excluded physicians who were in training (residents/fellows), retired, primarily caring for adult patients, not directly involved in patient care, and those who moved out of state without any forwarding address or resided outside of the United States. Of the 1670 physicians on the initial mailing lists, we removed 178 (10.7%) before mailing, based on exclusion criteria to yield a final mailing list of 1492 physicians (497 DBPs, 500 PEDs, and 495 PSYs).

Survey items were developed to assess the reported frequency that alternate diagnostic codes were used, reasons for different coding approaches, diagnoses involved, and attitudes on coding in addition to physician demographics, practice organization, and patient mix. The survey was pilot-tested among local physicians representing each provider group. The University of Michigan Institutional Review Board approved the study and survey. The final survey was a 4-page written self-administered instrument with yes/no, multiple choice, 5-point Likert responses, and space for open-ended additional comments. We sent 3 mailings of the full survey to physicians who met inclusion criteria until a response was received. In addition, a condensed 1-page version of the survey was mailed to nonrespondents after the initial 3-wave mailing to compare demographics and responses on key questions for those providers who did not complete the initial survey. This step was added to attempt to discern if there were differences in alternate coding between respondents and nonrespondents to our survey.

To obtain a wide sampling of all alternate coding issues, we asked respondents to consider a wide range of diagnosis, coding, and billing issues without a leading bias toward any specific aspect or narrow definition of coding. The main outcome of interest, frequency of alternate coding, was reported in the item “Have you ever used an alternate diagnostic code in the place of a behavioral or mental disorder for any reason? If yes, please check a box indicating frequency.” Outcomes for frequency of alternate coding were listed as “never,” “rarely,” “monthly,” “weekly,” and “daily.” Before analysis, we elected to group outcomes of coding frequency comparing respondents who reported “never-rarely”

versus “monthly-daily” alternate coding. Another item queried the use of “upcoding” (increasing the level of diagnosis, specificity, or severity) in contrast to “downcoding” (using more broad, general terms or symptoms, modifiers). Additional items asked physicians to describe their practice demographics, methods of diagnosis, administration of coding, and attitudes toward coding using multiple-choice responses with an option to write in other responses. Physician attitudes on coding were assessed using a 5-point Likert scale of agreement. Before analysis, Likert outcomes were grouped as “agree-strongly agree” and “strongly disagree-disagree-neutral.” Finally, we developed 2 patient case vignettes to illustrate key coding issues.

Research assistants transferred survey data into a spreadsheet, which was double-entered to ensure accuracy. All surveys and data were kept confidential using a unique identifier code. Response rate for the mailings was calculated based on physician type by the mailing list for eligible physicians. For the analysis of results, physician types were confirmed and recoded, if necessary, based on response to the survey item regarding primary specialty. The final data were analyzed using Stata version 6.0 (College Station, TX) statistical software. We used Pearson’s χ^2 test to compare outcomes by different physician groups and other physician characteristics. Finally, we used multivariate logistic regression to examine physician responses associated with a greater likelihood of monthly-daily alternate coding use while adjusting for physician demographics and practice characteristics.

RESULTS

Overall response rate was 62.0% (787 of 1269 eligible physicians). From the mailing to 1492 physicians, we excluded 187 physicians (12.5%) based on responses to survey eligibility screening items and 36 physicians (2.4%) checked a screening item indicating their refusal to consent to participate. Response rate was highest for providers on the DBP mailing list (326/429 or 76.0%) followed by respondents on the PED list (232/406 or 57.1%) and PSY list (229/434 or 52.8%). After adjusting for physicians’ reported specialty type based on survey responses, the final sample consisted of 787 completed surveys—273 DBPs, 278 PEDs, and 236 PSYs.

Demographics of the respondents are displayed in Table 1. The physician groups in our sample displayed some similarities; however, there were important distinctions in practice experience, setting, ownership, and patient population.

TABLE 1. Demographics of Respondents by Provider Type

	Overall (%)	DBP (%)	PED (%)	PSY (%)	P Value*
Male gender	54.0	49.6%	56.0%	57.2%	.214
>10 y in practice	39.2	49.0	31.7	35.0	<.001
Practice setting					
Rural	10.8	7.1	14.8	11.1	
Urban	26.0	34.4	15.2	27.1	<.001
Medium-sized/suburban	63.2	58.5	70.0	61.8	
Practice ownership					
Academic	23.6	41.2	9.5	16.9	
HMO	2.4	2.5	4.3	0.5	
Hospital	15.2	18.0	19.5	7.5	<.001
Private	45.3	25.7	61.0	52.7	
Public/other	13.4	12.7	5.7	22.4	
Higher managed care patient population (>40%)	54.1	57.8	61.4	41.8	<.001
Higher Medicaid patient population (>40%)	24.6	27.9	16.8	28.6	<.001

HMO indicates health maintenance organization.

* Overall test of association among the 3 provider groups.

Frequency and Uses of Alternate Coding

Alternate coding strategies were a common part of practice. Over two thirds of providers reported ever using an alternate diagnostic code, and many reported common use (monthly-weekly). Approximately 10% used alternate diagnostic codes on a daily basis. Table 2 shows the responses by provider type; DBPs were more likely to report use of alternate diagnostic codes ($P < .001$).

If physicians had ever used alternate coding, the disorders most commonly involved were attentional disorders (DBP 64.0%, PED 60.1%, PSY 39.8%; $P < .001$), depressive disorders (DBP 36.0%, PED 56.5%, PSY 48.3%; $P = .001$), learning disabilities (DBP 59.5%, PED 42.8%, PSY 26.3%; $P < .001$), and autistic spectrum disorders (DBP 52.5%, PED 23.9%, PSY 38.1%; $P < .001$). Suicidality (DBP 5.1%, PED 3.5%, PSY 7.6%; $P = .267$), substance abuse (DBP 5.5%, PED 11.6%, PSY 24.6%; $P < .001$), eating disorders (DBP 5.5%, PED 20.3%, PSY 12.7%; $P < .001$), and encopresis (DBP 8.5%, PED 8.0%, PSY 4.2%; $P = .338$) were less commonly cited conditions for alternate coding.

When an alternate diagnostic code was used, the majority involved downcoding (use of a broader, more general term, symptoms, or a modifier). However, 13.9% of physicians most commonly used upcoding to increase the level of diagnosis, severity, or specificity. There were no significant differences by specialty in the frequent use of upcoding (DBP 15.8%, PED 12.1%, PSY 18.3%; $P = .423$).

A variety of strategies were used instead of behavioral or mental diagnoses (Table 3). These general themes were illustrated by comments written in the open-ended space provided. Specific examples included: “use a neurology-based code” or “encephalopathy,” “I use V-codes,” “use adjustment reaction,” “use NOS, Not Otherwise Specified,” and use of terms like “cerebral dysfunction” in place of attention-deficit/hyperactivity disorder, depression, anxiety, or autism. Approaches to alternate coding varied by provider type: DBPs used secondary and multiple codes; PEDs most commonly used symptoms or physical manifestations; and PSYs used modifiers (“rule-out,” “possible,” “provisional”) more frequently than the other physicians.

Approach to Coding and Administration

The majority of respondents coded diagnoses based on *International Classification of Disease* terms (DBP 78.8%, PED 91.8%, PSY 35.9%; $P < .001$). PED were also much more likely to diagnose behavioral and mental disorders based on their clinical impres-

sion alone without use of diagnostic criteria such as the Diagnostic and Statistical Manual (*DSM*) (DBP 41.9%, PED 63.2%, PSY 28.0%; $P < .001$). Over 99% of psychiatrists and over 89% of DBPs used the *DSM* to diagnose mental disorders, in contrast to approximately half (53.2%) of PEDs. Thirty-nine percent of PEDs did not have access to the *DSM*, and a large proportion of pediatricians (38.5%) had never heard of the *DSM-Primary Care* version.

From answers to survey items exploring the practice administration and structure for coding and billing, it was apparent that most providers did not report structured administrative or practice mechanisms to address coverage and reimbursement issues. One quarter of the physicians had a list of preferred codes to use (DBP 44.4%, PED 20.7, PSY 9.9%; $P < .001$). The codes were provided by a variety of sources including colleagues, billing clerks, and practice managers. Less than half of the providers received feedback or complaints on denied claims, services, and fees (DBP 56.3%, PED 45.2%, PSY 34.0%; $P < .001$). Parents were by far the greatest source of feedback, and a minority of physicians reported coding feedback by billing clerks, office managers, or insurers.

Reasons for Alternate Coding

Many different issues were cited as reasons for considering alternate coding of behavioral or mental disorders. The most common reason was diagnostic uncertainty. Lack of adequate codes to describe individual patient disorders was a related reason often cited. Other factors reported by the majority of respondents were associated with economic issues—coverage of patient service and physician/practice reimbursement. Issues such as parental acceptance, insurability, and confidentiality were less commonly cited. There were significant differences by physician type as shown in Table 4.

Attitudes on Coding

The physicians’ reported coding practices were supported by results from the survey items on attitudes as shown in Table 5 by level of agreement (agree-strongly agree). One of the most highly endorsed items reflected physician attribution of coding pressures to insurers and managed care organizations. Most physicians believed that coding issues occur more frequently with behavioral and mental disorders compared with other traditionally termed “physical” medical conditions. Potentially negative aspects to coding were not highly affirmed, although a fairly large group of physicians (particularly psychiatrists) reported concerns that alternate diagnostic coding was dishonest, added to stigmatization, and potentially led to improper management decisions. Very few physicians reported a financial necessity to use alternate coding for their own reimbursement.

Physician Factors Associated With Use of Alternate Coding

In multivariate analysis, adjusting for physician type and demographic factors, the only physician variable that remained significant was physician

TABLE 2. Use of Alternate Coding by Provider Type

	Overall (%)	DBP (%)	PED (%)	PSY (%)	<i>P</i> Value*
Ever used alternate coding	70.3	82.9	68.1	58.0	<.001
Use alternate coding monthly or more	41.7	60.1	35.7	27.2	<.001
Use alternate coding weekly-daily	9.6	19.0	4.5	4.5	<.001

* Overall test of association among the 3 provider groups.

TABLE 3. Methods of Alternate Coding By Provider Type

	Overall (%)	DBP (%)	PED (%)	PSY (%)	P Value*
List physical/somatic manifestation of disorder	18.5	19.4	32.1	0.8	<.001
List individual symptom as diagnosis	18.0	15.4	29.3	9.2	<.001
List as secondary diagnosis and use multiple codes	13.7	18.4	4.3	16.8	<.001
Use of qualifiers, modifiers for diagnosis	13.3	10.0	3.6	30.3	<.001
Use of more general terms	10.4	11.4	9.3	10.1	.806
Other/combination of methods	26.1	25.4	21.4	32.8	.111

* Overall test of association among the 3 provider groups.

TABLE 4. Reported Reasons for Alternate Diagnosis

	Overall (%)	DBP (%)	PED (%)	PSY (%)	P Value*
Diagnostic uncertainty/subthreshold symptoms	72.5	75.7	68.3	72.7	.251
To obtain needed patient services	64.9	77.8	57.4	56.3	<.001
Lack of descriptive/individualized codes	54.2	65.7	42.6	51.4	<.001
To obtain physician/practice reimbursement	51.5	62.2	57.9	31.7	<.001
To avoid labeling/stigmatization	37.3	33.5	34.4	44.8	.039
Concern of lack of parental acceptance	30.4	36.1	24.6	29.0	.037
Worry about patient's future insurability	25.5	28.3	19.7	27.9	.094
Concerns of confidentiality	21.5	15.7	19.1	31.2	<.001

* Overall test of association compared the 3 provider groups.

TABLE 5. Attitudes on Coding: Agreement (Agree-Strongly Agree) by Provider Type

	Overall (%)	DBP (%)	PED (%)	PSY (%)	P Value*
Insurance and managed care organizations have created a system that fosters the use of alternate diagnoses.	79.6	83.4	78.5	75.9	.140
Alternate diagnostic codes are often needed to describe subthreshold or less severe conditions.	68.3	76.7	62.4	63.9	.002
Use of alternate diagnoses is more common for mental/behavioral problems than for other "physical" disorders	67.2	77.8	69.2	51.4	<.001
In some cases it is justified to use alternate diagnostic codes.	64.1	69.3	60.6	61.3	.103
Use of alternate diagnoses is sometimes the only way to obtain needed services.	63.7	71.6	59.7	58.3	.006
There are more pressures now than ever to use alternate diagnoses.	51.2	56.7	46.7	49.0	.089
Use of alternate diagnoses adds to the stigmatization of mental health problems.	27.7	25.3	22.5	36.1	.006
Use of alternate diagnoses could lead to improper treatment decisions.	27.4	20.5	27.2	35.9	.012
Use of alternate diagnoses is dishonest.	25.8	21.2	25.9	31.4	.001
Because of cuts in my reimbursement payments, it is a financial necessity to use alternate diagnoses.	17.3	22.6	19.7	8.4	<.001

* Overall test of association among the 3 provider groups.

type. DBPs were more likely to use alternate coding (odds ratio [OR]: 2.1; 95% confidence interval [CI]: 1.2–3.6) in comparison to PEDs (OR: 0.9; 95% CI: 0.5–1.7) with PSYs as the reference group. Practice characteristics in the multivariate model that were significant included physicians who used a list of preferred diagnostic codes (OR: 5.2; 95% CI: 3.3–8.3) and physicians who received feedback on denied claims (OR: 1.5; 95% CI: 1.0–2.2). Physician gender, years in practice, practice setting, percentage of Medicaid and managed care patients, and use of the *DSM* were not significant in the final model.

DISCUSSION

The use of alternate diagnostic codes for children with behavioral and mental conditions is a common practice. There are many different facets to coding and billing that vary by provider type and other

factors. Coding and billing problems seem to be most salient to developmental/behavioral pediatricians. Psychiatrists report less frequent use of alternate codes and relatively lower endorsement of financial pressures, yet this may reflect different practice reimbursement, through mental health carve-outs or more fee-for-service payments. Pediatricians may use different diagnostic approaches and symptom or diagnosis-based coding in comparison to Current Procedural Terminology and time-based coding used by other providers. Despite differences in practice types, coding issues are important for many physicians regardless of their specialty.

Our study describes aspects of coding that are pertinent to physicians caring for children and adolescents with behavioral and mental disorders. Earlier studies of physicians who care for adult patients cited issues such as insurability, confidentiality, and

stigmatization, yet these seem to be of lesser importance to respondents in our sample. We confirm the important financial pressures that have been described in previous studies, but another major issue of significance relates to the conflicting nosology and criteria of coding and clinical diagnosis. Physicians struggle with how to best describe mild, borderline, or subthreshold conditions in individual patients and developing children who do not readily fit into diagnostic or coding terms. Certainly, reimbursement issues compound the problem of different diagnostic and coding goals. However, our study clearly shows that coding challenges for children with behavioral conditions and mental disorders involve more than physician reimbursement and financial aspects of care.

Many providers seem to view alternate coding as advocacy for patients, families, and their practices to obtain needed services and reimbursement. In fact, the majority of respondents do not believe that the use of alternate codes is dishonest and seem to take a utilitarian approach to the professional ethical dilemmas. Most respondents cite concerns of financial hardships to patients' families and out-of-pocket expenses for services not covered over motivation by their own physician fees. Alternate coding is accomplished by multiple methods and involves different "directions" of coding—not only upcoding (to increase severity, specificity), but also downcoding (to substitute broader terms, symptoms, or physical manifestations). Upcoding has been described in the context of severity, level of service, and "DRG creep" to improve reimbursement of inpatient services at a higher rate.^{18,27} The concept of upcoding/downcoding may also apply to diagnostic terms and outpatient coding, but for different reasons than reimbursement alone. Although upcoding may connote inappropriate practice, the majority of physicians tend to downcode mental conditions, and physicians may actually reduce their ability to receive payment in some cases.

However, a sizable number of providers, especially psychiatrists, believe that miscoding is dishonest, contributes to stigmatization of behavioral conditions, and can potentially lead to improper treatment decisions. We must consider the many ramifications of coding on patient-provider relationships, the quality of medical records, the validity of administrative research claims data, and financial impact. Diagnostic coding practices have significant implications for patients, physicians, payers, and the health care system.

Limitations

Because of the many complexities of this issue, there are important potential limits to our study. First, miscoding, fraud, and specific aspects of coding may depend on the respondent's interpretation of the term alternate coding. In addition, individual coding decisions may differ for patients with specific disorders, insurers, and other distinct patient/parent factors. Individual providers may use many of these different strategies instead of a single, consistent approach.

Second, we are keenly aware of a potential response bias that may underestimate miscoding. There were no statistically significant differences on main outcomes based on which mailing physicians responded to. However, the physicians on our mailing lists who never responded to any survey may be an even different group. For those who did respond, there may be a tendency to minimize endorsement of items that deal with financial motivations and less socially desirable answers. In addition, our survey sampling did not include adolescent medicine providers, pediatric neurologists, or other providers who deal with coding of behavioral and mental disorders.

Finally, the survey responses are dependent on physicians' honesty, recall, and ability to estimate practice behavior. Self-reported practices may not mirror actual provider coding methods. To maintain anonymity and confidentiality, we did not link survey materials with any physician charts or claims data; however, this additional step may be an important next phase of research to further explore our findings. Furthermore, our study suggests that a great deal of health services research and quality improvement initiatives are based on administrative claims data that may not accurately reflect patient diagnoses or clinical impressions.

CONCLUSION

Coding and diagnosis are important issues that frequently pose clinical, professional, and administrative dilemmas for many pediatric behavioral and mental health providers. As health care organizations and policies change, different issues are emerging such as physician reimbursement, coverage of services, and diagnostic classification. Other coding issues, such as confidentiality, insurance portability, and stigmatization, may be diminished in relevance, yet these aspects of care are still important for some providers. We cannot easily categorize all alternate coding simply as miscoding, gaming, or fraud. Coding may reflect earnest attempts by providers to work within the present system to categorize developing children with subthreshold symptoms; however, we must also consider any potential negative impact of alternate coding. We must foster clinical, administrative, and research efforts that will allow us to more effectively communicate across provider groups and realign the distinct, but equally important goals and uses of clinical diagnosis and administrative coding. Finally, we need to develop a dialogue among patients, providers, and payers that evolves beyond hidden paperwork maneuvering to a more explicit and rational discussion of clinical practice, administrative data quality, and professional ethics.

REFERENCES

1. Blumberg LJ, Nichols LM. The Health Insurance Portability and Accountability Act of 1996: summary of provisions and anticipated effects. *J Med Pract Manag.* 1998;14:13–18
2. Blumenthal D. Effects of market reforms on doctors and their patients. *Health Aff.* 1996;15:170–184
3. Hellinger FJ. The impact of financial incentives on physician behavior in

- managed care plans: a review of the evidence. *Med Care Res Rev.* 1996;53:294–314
4. Feldman DS, Novack DH, Gracely E. Effects of managed care on physician-patient relationships, quality of care, and the ethical practice of medicine. *Arch Intern Med.* 1998;158:1626–1632
 5. Wynia MK, Cummins DS, VanGeest JB, Wilson IB. Physician manipulation of reimbursement rules for patients. *JAMA.* 2000;283:1858–1865
 6. Rost K, Smith G, Matthews DB, Guise B. The deliberate misdiagnosis of major depression in primary care. *Arch Fam Med.* 1994;3:333–337
 7. Broadhead WE. Misdiagnosis of depression. Physicians contribute to the stigmatization of mental illness. *Arch Fam Med.* 1994;3:319–320
 8. Bloche MG. Clinical loyalties and the social purposes of medicine. *JAMA.* 1999;281:268–274
 9. Farber NJ, Berger MS, Davis EB, Weiner J, Boyer EG, Ubel PA. Confidentiality and health insurance fraud. *Arch Intern Med.* 1997;157:501–504
 10. Freeman VG, Rathore SS, Weinfurt KP, Schulman KA, Sulmasy DP. Lying for patients: physician deception of third-party payers. *Arch Intern Med.* 1999;159:2263–2270
 11. Jesilow P, Geis G, Pontell H. Fraud by physicians against Medicaid. *JAMA.* 1991;266:3318–3322
 12. Kalb PE. Health care fraud and abuse. *JAMA.* 1999;282:1163–1168
 13. Webster G. Serving two masters: medical practice vs administrative ethics. *JAMA.* 1999;282:1678–1679
 14. Cain JM. Is deception for reimbursement in obstetrics and gynecology justified? *Obstet Gynecol.* 1993;82:475–478
 15. Morreim EH. Gaming the system: dodging the rules, ruling the dodgers. *Arch Intern Med.* 1991;151:443–447
 16. Ubel PA. Physicians' duties in an era of cost containment: advocacy or betrayal? *JAMA.* 1999;282:1675
 17. Kennedy GT, Stern MP, Crawford MH. Miscoding of hospital discharges as acute myocardial infarction: implications for surveillance programs aimed at elucidating trends in coronary artery disease. *Am J Cardiol.* 1984;58:1000–1002
 18. Psaty BM, Boineau R, Kuller LH, Luepker RV. The potential costs of upcoding for heart failure in the United States. *Am J Cardiol.* 1999;84:108–109
 19. Rifkin DE. Community considerations: the many effects of miscoding. *JAMA.* 1999;282:1676–1677
 20. Browne RA, Melfi CA, Croghan TW, et al. Issues to consider when conducting research using physician-reported antidepressant claims. *Drug Ben Trends.* 1998;10:37–42
 21. Novack D, Detering B, Arnold R, Forrow L, Ladinsky M, Pezzullo J. Physicians' attitudes towards using deception to resolve difficult ethical problems. *JAMA.* 1989;261:2980–2985
 22. Connolly JF, Cullen A. Under-reporting of suicide in an Irish county. *Crisis.* 1995;16:33–34
 23. Wolf CJ. Deception in psychiatric reimbursement. *Am J Forensic Psychiatry.* 2001;22:7–17
 24. Jencks SF. Recognition of mental distress and diagnosis of mental disorder in primary care. *JAMA.* 1985;253:1903–1907
 25. Lavigne JV, Binns HJ, Christoffel KK, et al. Behavioral and emotional problems among preschool children in pediatric primary care: prevalence and pediatricians' recognition. *Pediatrics.* 1993;91:649–655
 26. Regier DA, Goldberg ID, Taube CA. The de facto US mental health services system. *Arch Gen Psychiatry.* 1978;35:685–693
 27. Simborg DW. DRG creep: a new hospital-acquired disease. *N Engl J Med.* 1981;304:1602–1604

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