

Comments:

Refinement of the Medicare Diagnosis-Related Groups (DRGs) to Incorporate a Measure of Severity

Background of Commenting Organization

Next Wave, Inc. (NWI) is a consulting and education firm which specializes in the design, implementation, training, evaluation, and refinement of health care payment and quality monitoring systems, particularly those utilizing patient classification tools such as the DRGs. NWI's President, John D. Shaw's background includes participation on numerous research and evaluation teams, including the Rochester MAXICAP project to design a community focused system linking planning and payment, the New York State Case Mix Project in the late 70's to evaluate and incorporate DRGs as a case mix adjuster to the per diem payment system, Technical Advisory Group member for the Nursing Home Resource Utilization Groups (RUG II and RUG III+), and Professional Advisory Group member for Nursing Home Quality Measures for New York. He was the Technical Consultant to the New York State Legislature for the design of the DRG case payment based New York Prospective Reimbursement Method (NYPHRM).

Over the years, Next Wave and its staff have performed research and evaluation studies and conducted educational programs for individual hospitals and groups of hospitals, individual nursing homes and groups of nursing homes, individual insurers and groups of insurance and managed care companies, as well as various federal and state agencies in New York and other states. These studies and projects have included involvement from a very broad perspective, such as the "Hospital of the Future" project (30 year plan) in New Jersey in 1984, overall regulatory payment system design as described above, and evaluation of proposed or recently implemented regulatory payment systems for affected providers and payors. Other projects and education have been at the very detailed level, such as teaching line staff how to complete specific items in federal and state patient assessment forms and cost report completion. We have represented regulators, payors, and providers. We have studied implicit and explicit payment system incentives from both the theoretical design perspective as well as the practical realities of implementation. This broad experience provides a unique perspective from which to make comments on the proposed severity adjustment to the DRGs.

Note that because of this broad experience and diverse clients, we wish to stress that our comments in this paper are strictly our own, based upon our own analysis and observation, and do not necessarily represent the views of our current or previous clients.

General Focus of Comments

Patient classification tools to determine payment categories and quality measures are Next Wave's primary company focus. Our mission is to encourage all interested parties to utilize these tools and assist them in all aspects of doing so. The basis for this strong commitment is that we consider the information potential of patient classification to be a major component of the solution to the health care dilemma. By providing a "product definition" for health care services, regulators and providers alike have a much greater opportunity to actually achieve the efficiency savings and effectiveness improvements that many have expressed are possible.

In most patient classification studies in the past decade, approximately half of the cost variation between

patients or providers can be "explained" statistically by the classification system (40 - 50% directly measured on an "inlier" population, 50 - 60% after adjusting for "outliers"). The remaining half of the variation is due to unique clinical and/or psychosocial differences in individual patients as well as different practice patterns of specific physicians or institutional providers.

Historically, there has been a tendency to focus on the latter half of the variation as an excuse as to why "nothing can be done" to address the 20 - 30% of hospital costs that many consider to be "waste" (or at least unnecessary in an ideal world). We would agree that it is unrealistic or impossible to expect individual patients, physicians, or organizations to behave in exactly the same way. On the other hand, we would argue that this still leaves the remaining half of the variation where there ARE similarities between patients and where delivery efficiencies CAN be addressed. Saving even half of 20 - 30% of hospital expenditures could provide significant resources for funding other health care priorities.

Effective use of patient classification tools like the DRGs or Severity Adjusted DRGs are a key to show all interested parties specifically WHERE to look to achieve these efficiency savings.

We have attempted in our review and comments to focus on the realities of the environment in which the proposed changes are to be implemented. Some of the major realities and confounding issues which we have considered in structuring our comments are included in the following discussion.

Both the health care delivery system and the corresponding regulatory environment in which providers operate are extremely complicated. Because of this complexity, it is extremely difficult to make any change and anticipate the outcomes of that change. Impacts must be evaluated from clinical, financial, public policy, political, and practical perspectives. Few individuals or organizations have strong experience and knowledge in all of these areas, leaving many "blind spots." This in turn makes identifying and resolving confounding issues between various interest groups problematic. The apparent failure to achieve any meaningful health reform this year is attributed in large part to this complexity. There is a strong tendency for all to make "simplifying assumptions" and only deal with some of the issues because it is easier. In our comments, we have tried to acknowledge the complexity of the issues, and offer ways of dealing with this complexity, rather than trying to pretend it is not there.

In a broad sense, there is a need to balance the issues of Quality, Access, and Cost Effectiveness in structuring a stable system. Paraphrasing a business leader speaking on Health Reform, "I can give you any two of the three, but let someone else try to provide all three." High quality and convenient access to all comes at a high price. There is an expressed concern by many that any cost savings are likely to come at some reduced level of quality or access. Although this may be true, the fact remains that all three issues need to be addressed and balanced to the greatest extent possible. In our comments, we have attempted to address specific areas where all three issues can and should be incorporated.

In health care, as in many other regulated industries, there are expressed concerns that the "other" party lacks perspective. Providers express that regulators and academic researchers are many times stuck in an "ivory tower," and are out of touch with the realities of the provider's day-to-day operations and the frustrations they experience in dealing with patients going through trying times. Regulators and researchers express that providers are often stuck in a pattern of doing things a certain way because "that's the way we have always done it," failing to take into account that times have changed. As in most real world situations, both sides are partially correct. In our comments, we have attempted to acknowledge these perceptions, and offer specific "middle ground" positions which might prove acceptable to both sides.

One byproduct of the ongoing health reform discussions is a heightened political awareness of any issue which could be considered a factor in Medicare/Medicaid cuts. In addition to cuts, any regulatory change in payment policy tends to be implemented in a "budget neutral" or "zero sum" manner (i.e. each change will have "winners and losers"). Both issues raise anxiety levels for providers who anticipate that they will individually face losses. When added to the anxiety over change itself, particularly rapid change, there will likely be much concern over the proposed DRG refinements. It is therefore important to highlight that in this particular change, the positive bottom line opportunities far outweigh **(by an order of magnitude)** any potential losses due to "budget neutrality" shifting. Also, assuming the refinements are better measures of reality, what is potentially lost is a previous windfall. We also have observed some correlation between bottom line performance and the ability to understand and manage under whatever regulatory policy is implemented. Issues of inequity should be corrected. Lost "windfalls" can likely be made up in the first year by effective use of a better management tool - the Severity refined DRGs.

Our recommendations follow.

Specific Comments and Recommendations

1.0 The Severity Adjusted DRGs should be implemented as quickly as possible to provide a framework for evaluating opportunities for increased efficiencies. Implicit long term quality and cost effectiveness benefits will then accrue sooner. These benefits result from a clearer focus by all parties on both the patient and on the delivery process.

Using DRGs for payment creates a financial incentive for providers to focus on the DRGs, particularly exceptions analysis of patients who are financial "winners" vs. "losers." Making the DRG Refinement Process (exceptions analysis of changes implemented this year and/or needed for next year) an ongoing focus will help provide hospital management with an incentive to explore both the patients' needs (quality) and internal operations to meet these needs (efficiency and effectiveness).

In general we favor use of a direct versus an indirect measure of severity. The issue of severity is one that has been around as long as DRGs themselves. Any process based on averages which also incorporates non-random selection (in this case, physician referral patterns) will tend to have clusters of "high end" cases in some facilities and "low end" cases in others. This has also been encouraged by appropriate public policies which encourage regional referral centers and centers of excellence.

The payment equity measure currently used to adjust for this is the indirect medical education adjustment, since commitment to teaching is highly correlated to patient severity. This will, however, have the result of focusing management fiscal attention on numbers of medical residents rather than the severity of patients. Also, while teaching commitment is highly correlated with patient severity in general (e.g. urban teaching hospitals are most positively affected by the Severity Proposal), it may not be proportional at an individual hospital level. The Medicare statute would seem to favor focus on patient severity since it mentions reimbursing for the costs of treating Medicare beneficiaries. Since the indirect medical education adjustment is determined statistically AFTER case mix adjustments, remaining severity NOT measured by the proposed direct tool would still be taken into account.

2.0 There should be a strong effort to insure that all interested parties are aware of the implicit incentives in the Severity measure, as well as its value as a management tool. Incentives are only effective if all parties affected realize they exist, understand how they work, and believe they work. Conveying this knowledge should be achieved by a combination of clear written materials and one

or more national conference(s) to "sell" the concept (similar to that held in New Jersey to introduce the DRGs).

We strongly support discussion of intent and implicit incentives built into the system as outlined in the severity proposal. After over ten years of dealing with the details of the Prospective Payment System, it is easy to forget Medicare's intent in use of DRGs and the proposed Severity adjustment. This intent as stated in the proposal includes:

Aggregate inpatient hospital discharges into patient categories with similar resource consumption and clinical patterns to define and measure case mix complexity

Reduce variation within a DRG (i.e. make them as homogeneous as possible) since this is both an equity and a credibility issue for the Medicare payment process

Provide incentives to hospitals to manage in a more cost effective manner and provide a framework to evaluate increased efficiencies

Identify and adjust for legitimate cost differences due to selecting more severely ill patients than average for treatment (for example those specializing in treating patients in a select, high cost group). This is done to prevent either payment inequities or avoidance of patients with high levels of un-reimbursed resource use.

Encourage Hospitals to treat a mix of patients so that gains on the low cost side will offset losses on the high cost side. Since there will always be some "within group" variation, targeting an overall "average" patient population for the hospital will automatically adjust for factors/issues not directly accounted for in the payment methodology.

We believe that the first four stated intents and incentives of the DRGs are much more common knowledge than the fifth. It may be intuitively obvious that one way to insure a good "fit" and reduce financial risk in a payment system which changes each year but is driven by averages is to become an average facility. In practice, however, this has been difficult for an individual hospital to accomplish due to either geographic or competitive constraints. With the current focus on consolidation, alliance, and hospital system creation, this incentive becomes feasible. These entities can now specifically target an "average" mix as a goal to reduce the financial risk of regulatory change. Note that even in this case, DRGs and severity remain useful tools for budgeting and cost allocations across divisions/locations even if the overall alliance looks "average." More accurate DRGs will also allow for better use as "risk adjustments" in evaluating managed care contracts for all parties concerned.

Use of more refined DRGs will help facilities focus on patient similarities (and Standards of Practice) rather than differences. This will help the entire hospital delivery system to achieve whatever productivity gains are possible. Differences in individual patient needs may REDUCE potential productivity gains, but WILL NOT ELIMINATE them. "Benchmarking" using some standard, even if it only accounts for half of the cost variation, will result in ongoing improvements in both patient care quality and cost effectiveness.

3.0 There should be an explicit, strong commitment to an "Annual Agenda for Refinement," with specific focus on key areas of quality, access, and payment equity. Frequent incremental change provides the benefit of maintaining the focus on the patient and delivery process and at the same time reduces the risks of litigation and "coding Creep."

A major cost component in health care is the cost of initiating or defending "equity gap/equal protection" litigation (Boren Lawsuits, class action methodology challenges, etc.). Hospitals expend considerable cash (consultant, legal, and association fees) to identify and document these issues. They expend considerable management attention on these issues as well, leaving less time to focus on patient care and operational efficiencies. Regulators also expend considerable effort to make regulatory changes "litigation proof."

Litigation generally is only initiated for MAJOR dollar issues to justify the cost and generally takes many years to resolve, particularly if there are many appeals. Management decision making for ALL parties is made much more complicated because of many significant "unknowns." Many decisions have major benefits if a particular lawsuit is decided a certain way, but major negative consequences if decided the other way. If the outcome of such a lawsuit is unknown, many times the result will be that NO DECISION is made, thus stifling progress and innovation.

We therefore strongly recommend ongoing incremental changes in order to balance equity vs. stability (i.e. Evolution vs. Revolution). A stated, ongoing "Annual Agenda for Refinement" will signal direction to all interested parties and remove much of the justification for litigation. The psychological benefits for ALL parties of a positive focus on future opportunities instead of past inequities is obvious. See Attachment 1 - "Recommended Focus: Annual Agenda for Refinement" for details. Note that one of the "emerging" populations which should be studied is the Very Elderly (i.e. over 85). Also note that existing DRG refinement efforts to create new DRGs for clinically consistent patient groups should continue.

4.0 The current Severity proposal should be refined by including analysis of Major Complication/Comorbidity issues "mid-level" between the entire population and the individual DRG. This should be specific MDCs and/or clinical specialties (e.g. Cancer, Orthopedics, Cardiac, Eye and Ear, etc.). Otherwise, significant areas of severity will be missed, with the hospitals providing such care disadvantaged and beneficiary access constrained. In addition, this analysis will assist in reducing the potential for "coding Creep" by focusing each MCC diagnosis on the specific clinical specialties affected. (See also specific recommendations in the text of this section.)

We strongly support the intent of the overall analysis and "Select Analysis" already performed (I.D. those CCs and MCCs which affect the entire population, review medical vs. surgical, discharged alive vs. died, secondary diagnosis required for DRG assignment, attention to Quality issues, coding of NEC and NOS diagnosis, etc.) We propose additional analysis as an outgrowth and refinement of the analysis already performed. We have attempted to structure our specific recommendations to fit within the basic severity structure already proposed in order to facilitate easy implementation. Our comments in this area were initiated by an unexpected and disturbing pattern of impacts observed for hospitals who focus on specific patient populations. As indicated in previous comments, we strongly support inclusion of a severity measure in the DRG/PPS system. We anticipated that the proposal would be a significant benefit to those hospitals which focus on specific patient populations (Orthopedics, Cancer, Eye and Ear, Cardiac, etc.), particularly since the impact analysis of the refined DRGs showed the largest gain (+ 0.50%) for Major Teaching hospitals.

When we actually summarized the impacts for hospitals recognized nationally as the best in their specialty, however, we found a NEGATIVE impact (i.e. -0.24%) of the refined DRGs. (Hospitals identified in U.S. News and World Report - Best Hospitals in America, based largely on national peer rankings by physicians, % impacts derived from updated data from HCFA provided in September).

Breakdowns by Specialty are as follows:

Specialty	% Impact
Ophthalmology	-0.71
Cardiology	-0.48
Urology	-0.42
Otolaryngology	-0.38
Orthopedics	-0.33
Gastroenterology	-0.29
Cancer	-0.28
Endocrinology	-0.28
Rheumatology	-0.28
Neurology	-0.24
Gynecology	-0.16
AIDS	-0.10
Pediatrics	0.03
Geriatrics	0.05

We found similar patterns (-0.17%) for the group of Lung Transplant Centers for which we recently completed an evaluation project. A NEGATIVE discrepancy of this magnitude (over \$ 35 million for these 95 hospitals) was obviously disturbing since the "Prestige" of those hospitals negatively impacted would likely adversely affect the chances for smooth implementation of the proposal. This caused us to look deeper as to possible reasons for this discrepancy.

We looked at the number of the 15 specialties for each of the 95 hospitals and found as follows:

# of Specialties	# Hospitals	% Impact
14 - 15	6	-0.64
9 - 13	24	0.10
4 - 8	17	-1.37
1 - 3	48	0.06

While none of the groups achieved the +0.50% overall average impact for all major teaching hospitals,

those which had either few (1 - 3) or many (9 - 13) specialties did better than those with medium (4 - 8) or very high (14 - 15) specialties. We attribute this difference to the benefits of "averaging" - hospitals not too far from the "average" are able to offset gains and losses, while those with "skewed" patient populations are not. This pattern supported observations we made during recent DRG refinement studies we performed of new, emerging, and specialty populations - **THERE ARE CERTAIN CONDITIONS WITHIN A PARTICULAR SPECIALTY WHICH WILL COMPLICATE CASES IN THAT SPECIALTY BUT WHICH MAY NOT DO SO IN OTHER SPECIALTIES.** Put in lay terms, "One size does NOT fit all" when looking at major medical complications.

An example to illustrate this point, gleaned from recent work we performed in the Orthopedics area in New York State (which already has MCCs), is the Venous Thrombosis diagnosis. For the limited number of Orthopedic surgical cases with this secondary diagnosis, costs are demonstrably higher due to the higher nursing costs, lengths of stays associated with heparin therapy pre-op and post-op, and the more complicated operations due to reduced clotting. Costs are similar to other Orthopedic cases with Major Complications. Many patients with this diagnosis, however, are in cardiac or other DRGs where many patients have this secondary diagnosis and therefore have these increased costs already included in the DRG payment. When looking across ALL of the DRGs to define MCCs, this will NOT show up, since the major impact on Orthopedic cases is "masked" statistically by limited impact in other MDCs (this diagnosis is therefore considered a CC, but not a MCC in either the Medicare or All Payor DRGs). Beneficiaries with this condition, and the hospitals to which they are referred, will not be equitably reimbursed.

We have found similar patterns in respiratory, cardiac, and neonatal areas and anticipate similar patterns across all Major Specialties. This could explain, at least in part, the unexpected negative impact on hospitals likely to receive referrals of these patients. (Note: We believe that the dynamics of "trimming" for computation of the weights and subsequent "normalization" as discussed in more detail in section 10 are the other major causes of this impact). Fortunately, there is a simple mechanism to both identify and incorporate these "mid-level" complications which we have included with several other specific recommendations as follows:

4.1 We STRONGLY recommend performing several MCC/CC categorization analyses similar to that done for the universe, but using each MDC (or clinical specialty in the case of Cancer) as the study population. This will identify diagnoses that should and should not be included as MCC and CC for specific MDCs. We anticipate that the number of differences from the master list will likely be small, but have a significant overall impact on variance reduction. This will also address the equity issue raised above and at the same time reduce the likelihood of coding Creep.

4.2 Implement the above findings by expanding the existing CC and MCC "exclusion" lists. While this will make the lists longer, it will have little practical impact on complexity, since these lists are almost exclusively managed by computer. It also utilizes existing technology, and therefore should be easy to implement without any changes to grouping software other than slightly larger exclusion data tables.

4.3 Include certain Surgical Procedure/Diagnosis combinations as major complications (similar to what is done in the AP-DRGs) to capture issues such as ventilator use and Total Parenteral Nutrition (TPN) not captured by the diagnoses or the DRGs. Although these complications may be considered "service driven," appropriateness oversight can be performed by the fiscal

intermediary or PRO - who are probably already reviewing the case as a cost outlier.

4.4 A recommended refinement to the current process used to define CCs and MCCs would be to perform a reweighting of diagnosis AFTER the final collapsing and compare results to the initial determination (both overall and by MDC/Specialty). This would help validate the ENTIRE severity process, including collapsing. Weights could be:

MCC	3.0
MCC/CC	2.5
CC	2.0
CC/Non	1.5
Non	1.0

4.5 Review cases with MULTIPLE complications as a refinement.

4.6 We agree with the proposal to include NEC diagnosis codes and exclude NOS codes, however, we recommend formal analysis of NOS cases each year to identify necessary refinements to the ICD9-CM diagnosis codes.

5.0 The current Severity proposal should be refined by inclusion of diagnoses identified in the analysis of the non-Medicare population. This will enhance the consistency of the Severity measure across payors and States. There should be little, if any, impact on Medicare payments due to few Medicare cases and the "collapsing" process.

We strongly recommend that analysis of low volume, "younger" populations be done expeditiously and incorporated into Medicare Severity definitions. This is critical due to widespread use of the Medicare defined DRGs by non-Medicare payers. A recent study by RAND/UCLA/Harvard (February 1994 - "Use of DRGs by Non-Medicare Payers") indicated 21 State Medicaid programs and 36 Blue Cross/Blue Shield Association Plans already utilize DRGs in their payment process. Given the movement toward Health Reform, this use is likely to accelerate. In order to lay the groundwork for Reform and achieve reasonable coordination and equity between Medicare, Medicaid, Blue Cross, and other insurance carriers, consistent definitions are necessary. While we recognize that the lengths of stay, weights, and relative payments for the Non-Medicare population may be different, the DRG classification system should be the same.

Some examples of diagnoses which are Major Complications for the Non-Medicare population include Salmonella, Miliary TB, Rabies, Coxsackie Virus, Diphtheria, Pertussis, Whooping Cough, Rubella, Reye's Syndrome, animal bites, etc.

We expect that including these modifications should not materially affect the Medicare population due to the low Medicare volume for many of these diagnoses. The collapsing process will also mitigate any Medicare impact by only maintaining the split if statistically significant. (Note: While complete consistency is desired, a hybrid which could be considered is to make the pre-collapsing CC, MCC, and DRG definitions consistent across payers, but make the collapsing process payer-dependent along with the weights and payments. This would, however, introduce an additional level of complexity and potential confusion and if implemented, should be considered in DRG Numbering.) Specific

recommendations include:

5.1 Analysis should include ALL age groups in the non-Medicare population, and not be limited to the Newborn, Maternity, and under 17 populations.

5.2 Additional "collapsing" of AGE groups (0 - 17, 18+) should be considered where current practice patterns are similar for both the elderly and non-elderly populations.

6.0 The current Severity proposal should be refined by including factors to address access and clinical referral patterns. This will recognize and support the movement of complex care to regional "Centers of Excellence" as well as continue to assure rural access to appropriate medical care for Medicare beneficiaries.

We strongly recommend adding an "access" criteria to the design of the DRG refinements. We have observed that access to medical care is a major factor for the general population. Many recent lawsuits (such as those addressing Bone Marrow Transplants) have hinged on access issues as it relates to financial coverage. There are already a number of "access" related adjustments to the payment process (Sole Community Hospitals, Rural Referral Centers, Disproportionate Share Hospitals, etc.). Previous policy has also recognized access issues in defining several of the low volume DRGs (e.g. the Transplant DRGs). Adding a specific access dimension to the DRG Severity methodology will directly address the issues of groundbreaking medical research, new and emerging technologies, treatment for rare diseases, and specialized/complex treatments and diseases.

There is an industry-wide movement toward "Centers of Excellence" since studies have shown favorable costs and outcomes by "centralizing" services for patients requiring certain low volume, but high cost and/or complex care. Analysis should focus on referral patterns across a distribution of hospitals. Adjustments should ideally be considered in the overall framework of the analysis, particularly by recognizing low volume/high cost DRGs. Alternatively, an overall hospital-wide "factor" like Indirect Medical Education or Disproportionate Share (applied prior to both) could be used to measure overall referral patterns.

7.0 The current Severity proposal should be refined to include specific measures of Quality and Choice. Current measures may be limited (e.g. risk adjusted survival rates, existence of a DNR, palliative care vs. aggressive treatment, etc.), but inclusion of a starting point lays the groundwork for future refinements and better measures.

Annual and periodic analysis of refinements to the DRGs should specifically incorporate review of Quality and Choice impacts on case mix and DRG definitions. While still in its infancy, Quality and Choice Measures are rapidly becoming standards, particularly in the managed care sector. We recognize that most current measures are not readily available in the ICD9-CM codes on the patient bill, however, due to the long turnaround time for new codes, the process of defining such codes should begin as soon as possible.

8.0 Any "Budget Neutrality" constraint on implementation should consider the LONG TERM system efficiency value of a more accurate severity tool. "How does this affect me today" appears to be the major issue on whether to support the proposal for most interested parties. In order to achieve the benefits of eliminating current inefficiencies, it is necessary to "invest" some dollars today. It is more effective to spend resources on building a system which balances Quality, Access, and Payment Equity than spending those same resources on litigating the inequities of the current

system. A limited "hold harmless" and/or transition period and/or payment add-on could achieve these ends.

With a "Budget Neutral" or zero sum process, any new "winners" will automatically create new "losers," raising hospital anxiety and resistance to change. Given the significant opportunities for overall system savings by effectively utilizing these new management tools, some limited "incentive" payment is recommended to overcome this resistance. It would be extremely unfortunate for 10% cost reductions to be lost for lack of a minor incentive.

In addition, education can also help facilitate this change. It should be noted that if the refinement is indeed accurate, what is "lost" is an existing windfall. Perhaps "losers" can be encouraged to appreciate the previous windfall. Also, we have observed over the years that the hospitals who are consistently successful financially tend to fully understand the regulatory system and manage accordingly. Change and refinement to the regulatory system simply means new incentives may exist which must be incorporated into the hospital's strategies and operations. These hospitals accept changes as an expectation and manage accordingly.

Teaching Hospitals tend to treat more clinically complicated cases due to referral patterns. Large urban hospitals also tend to serve patients with broad complications caused in part by socio-economic living conditions. The current PPS system recognizes these issues in part through Indirect Medical Education (IME) and the Disproportionate Share (DSP) factors. These conditions are likely to be measured, at least in part, by the recommended Severity Adjusted DRGs. Note that we expect some offsetting impact on the IME and DSP factors since they are statistically derived as "proxy" measures for clinical and sociological severity. Direct measurement of severity will explain more cost variation, leaving correspondingly less to be explained by IME and DSP.

9.0 There should be explicit acknowledgement that "real" case mix increases should be paid and "coding Creep" should not. Given the current state of the art, there is a significant "grey area" of case mix change that could be either. We recommend specifically "splitting the difference" each year, thereby focusing attention of all parties on future refinements rather than current unknowns. Adjustments for "coding Creep" should be made on a regional, statewide, or MSA basis to accommodate different initial knowledge of severity coding as well as impacts of regional payment experiments.

Our recommendation is designed specifically to reduce both regulatory controversy and potential equity gap/equal protection (Boren) lawsuits by acknowledging reality - overall case mix increases are composed of BOTH "Real" and "Coding Creep" and there is currently no accurate way to totally distinguish between the two. Focusing on future refinements will tend to reduce lawsuits (similar to the discussion in comment # 3). This mechanism could also reduce the potential for "Legislative Intervention."

Our recommendation also recognizes a future equity issue due to significant differences in current coding practices by hospital and by region. Since hospitals in some states already incorporate MCCs in their All-Payor DRG Definitions, there will likely be less coding Creep increases. If coding Creep is removed on an average basis nationally, this will remove disproportionate amounts from the payments to these hospitals.

In response to concerns over the number of CC categories increasing the risk for coding Creep, in our

experience, the number of CC categories is only a minor factor in coding opportunities. It tends to be far more overshadowed by "inappropriate exclusions" (i.e. "Magic Codes" which may be statistically significant overall, but not in all DRGs or MDCs). Note that our recommended "mid-level" analysis (# 4 above) would address and reduce this potential.

In light of past "surprises" in case mix increases as they affect the budget (e.g. the unanticipated increase in average case mix due to a combination of new AIDS DRGs coupled with an increase in volume for these cases), it may also be worthwhile to consider adjusting for anticipated real and coding increases due to annual DRG refinement and new technology.

10.0 Technical Comments/Recommendations

Major Technical Recommendations

10.1 Payments for "Short Stay Outliers" should be made to avoid significant overpayments for "simple" cases, particularly cases which might otherwise be treated in the outpatient area.

Payments should be on an "enhanced" per diem basis per DRG (similar to transfer cases) to recognize the "front loading" of cost in the first few days of stay due to the admissions process, diagnostic testing, surgery preparation, surgery, recovery, all of which tend to occur in the first day or two of a stay. Short stay cases have significantly lower costs than average cases. Payments, however are made at the average of the DRG, thus overpaying these cases. This becomes an equity issue since the fraction of short stay cases will vary significantly by DRG and by hospital, particularly due to hospital mission and commitment to ambulatory surgery.

10.2 The entire weight determination and "normalization" process should be re-examined, particularly as implemented for determination of the Severity DRG weights. The current method appears to use initial weights for some DRGs based on the severity definitions and trimming. Weights for other DRGs (primarily Maternity, Newborn, and Pediatrics) appear to be based on version 11.0 definitions and trimming, and then "adjusted" by a constant factor representing the average increase in the weights for the Severity cases. Normalization appears to be based on combining both of the above sets of "relative" weights (based on two different denominators), and "normalizing" to the version 11.0 average case mix after adding back the outliers as if they were average non-outlier cases. DRGs such as Coronary Artery Bypass without Cardiac Cath. (old DRG 107) has one fifth the short stay cases as compared to Simple Pneumonia (old DRG 89) but over three times as many long stay cases. It is unclear how cost and long stay outliers and transfers are handled in normalization.

As a result, normalized weights are skewed on average toward the simpler cases, exactly the opposite of the intent of severity. This reduces both the statistical explanatory power and equity for those hospitals caring for the most severe patients. In effect, normalization is a "zero sum" adjustment. Since low cost and short stay cases are paid at the average of their respective DRGs, costs to cover these payments must come from the remaining cases in order to achieve a zero sum. This will adversely affect hospitals with fewer short stay/low cost cases. This likely explains in part the unexpected adverse impacts discussed under Recommendation 4 of our comments.

Specific Comments Requested

10.3 SHOULD DRGS 468, 476, 477 BE SPLIT BY MCC? We support splitting these DRGs by CC/MCC. If anything, there may be MORE justification of splitting these DRGs since by their nature, they represent a heterogeneous mix of cases across all MDC's. The definitions for CC and MCC were

also made across the heterogeneous patient population across all MDC's, and will therefore represent those conditions which will likely be a patient complication regardless of major diagnostic category.

A concern may be raised that increased payments for these cases in "exception" categories may encourage more patients to be grouped here. We would suggest that if this is a major concern, there could be closer scrutiny of these cases by the Fiscal Intermediary (e.g. higher sampling rate for MCC cases). Also, the current policy should be continued of reviewing these areas annually to pull out specific cases for direct accommodation in the DRG classifications.

10.4 NUMBERING FOR THE NEW DRGS (3 DIGITS VS. 4, LEAVE ROOM FOR NEW, ETC.)

Since computers are doing most of the work with computing and managing DRG data, this should not be a major consideration. The proposed numbering system is fine as it is. There will be some confusion on numbering REGARDLESS of the numbering system chosen simply because there is a change (e.g. DRG 121 was Acute Myocardial Infarction in the old DRGs, but would be Major Chest Trauma in the proposed severity DRGs). This confusion cannot be helped, the DRGs cannot be refined without changing them. We recommend NOT "leaving room" for future DRGs, since it is not feasible to predict how much room to leave and where to leave it. The computer can easily sort by MDC in any case. We do NOT recommend use of alpha-numeric fields since this could create computer problems where DRG is a currently a numeric field. Also, there are already 25 MDC's defined, there would only be room for one more without adding a digit. We do recommend moving to a 4 digit DRG field at a specified time in the future to give notice to computer vendors (i.e. include in the next update of specifications for systems to be used by the FI's.)

10.5 Basis of Determining Weights - Charges vs. LOS We recommend at minimum using charges vs. LOS, but would prefer using cost. We strongly recommend at minimum moving to use of a RCC converter at the hospital level (as is used for computation of Cost Outliers). This will adjust for significant differences noted (even in neighboring hospitals) in overall charge policies and reduce potential for "Gaming" the weights. We further recommend moving to a more refined costing approach to further reduce gaming and set to equitable weights. This would include a Departmental RCC for ancillary services, departmental per diems for various routine services, and further adjustments for differential routine services within routine cost centers (see Attachment 2 for an article on determination of differential nursing weights for routine services).

Other Technical Comments

10.6 "Collapsing" Adjacent DRG's We strongly support the proposed method of allowing the POTENTIAL for breakout of complex cases in each adjacent DRG and then collapsing the adjacent DRGs across the MCC, CC, and no CC subcategories. This will insure that breakouts could occur everywhere, but will only occur where statistically significant. Benefits will also include fewer DRGs, fewer low volume DRGs, and reduced potential for coding Creep. There is a need, however, to balance the benefits of ease of understanding and programming a common DRG structure (i.e. all DRGs split the same way) with the need to insure clinical meaningfulness (i.e. split the DRGs to correspond to the way MDs treat and refer patients according to appropriate clinical practice guidelines.)

10.7 Limit Numbers of DRGs We agree, if all other things are equal, that this is an appropriate goal. However, this should NOT be at the expense of equity, quality, or access. We agree that there is a benefit of having higher volumes of cases in each DRG since there is a greater likelihood that differences are real vs. statistical aberrations. Higher volumes also yield more stability over time (but again, there is a

need to balance stability with equity, and we favor equity.)

10.8 Availability of Data from Abstract We support this policy since this will limit the need and cost of "special" reporting outside of existing reporting mechanisms. We would, however, recommend accelerating the process for defining new diagnosis and procedure codes to accommodate the rapid movement in medical technology. We would also recommend closer linkages between the ICD9-CM codes used by institutional providers and the CPT-4 codes used by the physicians.