Peer Reviewed

RVU and Census Based Payment for The NICU Physicians

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The most common method for measuring physician productivity is the work relative value units (wRVU) used to determine reimbursement payments. The wRVUs are linked to the procedure, which has created a debate among procedural-based specialties. Orthopedic physicians have reported concerns with the RVU system of payment. (1,2) Similarly, RVUs were poorly correlated with surgical efforts and complexity. (3)

The neonatal intensive care unit (NICU) is a procedural-based specialty area. Most billings in the NICU are done via bundled charges, so a NICU patient brings in a set number of RVUs each day, depending on the billing tier. As most of the billings are done during the day shift, night shift on-call physicians do not generate enough RUVs putting them at a productivity disadvantage. This issue is very well highlighted by Mercuria. (4) By following the RVU model, the productivity of the night call physician could be limited except for the new admissions, as the morning physicians already bill all admitted patients. Similarly, the night call physicians (locum, moonlighter, per diem) are paid at an hourly rate not based on the RVU or census. Thus, there is a need for a payment model for the night call physician to narrow the disparity in productivity and payments.

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Physician payment is based on the guidelines provided by the Centers for Medicare & Medicaid Services. (5) Every CPT code has a median intra-service time (MIST) based on the amount of time and effort needed. Similarly, each CPT code has an assigned relative value unit (RVU). Payments are calculated by multiplying the RVU with an established conversion factor (CF). (6,7) Using this model, we suggest an approach to payment for the night on-call physician. The variability in the payment is based on productivity. Productivity is measured as the critical need of the NICU, represented by the RVU-based billing tier. For example, when critical billing patients increase, productivity is rated as high. Figures 1A and B present two examples. In example 1, the night call physician is paid more as the total productivity, as measured by total dollars generated during the day, is high compared to example 2. We used the four categories of CPT commonly billed in the NICU in these examples. These categories include all possible subsequent care tiers that represent most NICU patients. As the on-call physician could bill the new admissions, these CPT codes are not included in the calculation.

The suggested model is fair for both administrators and physicians, as it considers the RVU, census, and workload measured by the level of CPT code and billing tier. It could be quickly adopted, and MS Excel (or any accounting program) could be used to generate the final payment based on RVU and census. The suggested model would exclusively work for the physicians working part-time, locum, per diem, or moonlighter in the NICU; however, the full-time physician could also benefit from the suggested payment model if they are asked to provide extra night coverage for staff shortages (which is already happening with Covid pandemic).

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The model presented is only one side of the coin. We still need to find ways to acknowledge and document the productivity of the night call NICU physician.

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Figure 1 – A (Example 1 – RVU and Census based)

CPT code	MIST (Mins)	wRVU	CF	Payment (RVU based)	NICU Census	Day Payment (RVU based)	Average (Total/Census)	Night Payment (Average x hours)
99469	128	7.99	32	$255	5	$1275	x	x
99478	30	2.75	32	$88	6	$528	x	x
99479	30	2.50	32	$80	12	$960	x	x
99480	30	2.40	32	76.8	4	$307	x	x
Total	x	x	x	x	27	$3070	$113	113 x 12 = $1356

CPT code: 99469- subsequent critical care, 99478- subsequent care weight < 1500 grams

99479- subsequent care weight 1500- 2500 grams, 99480- subsequent care weight >2500 grams

MIST - Median Intra Service time (MIST), wRVU - work Relative Value Unit, CF - Conversion factor

Payment RVU based = wRVU x CF, Average day payment = Total RVU/ Census, Average night call = Average day payment x hours

Figure 1 – B (Example 2 – RVU and Census based)

CPT code	MIST (Mins)	wRVU	CF	Payment (RVU based)	NICU Census	Day Payment (RVU based)	Average (Total/Census)	Night Payment (Average x hours)
99469	128	7.99	32	$255	3	$765	x	x
99478	30	2.75	32	$88	5	$440	x	x
99479	30	2.50	32	$80	8	$640	x	x
99480	30	2.40	32	76.8	2	$153	x	x
Total	x	x	x	x	18	$1422	$79	79 x 12 = $948

CPT code: 99469- subsequent critical care, 99478- subsequent care weight < 1500 grams

99479- subsequent care weight 1500- 2500 grams, 99480- subsequent care weight >2500 grams

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Payment RVU based = wRVU x CF, Average day payment = Total RVU/ Census, Average night call = Average day payment x hours

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