

Estimated Effect of Changes in RVUs from CY 2017 to CY 2018 on Interventional Radiology

The following information provides an overview of the estimated effect of the calendar year [\(CY\) 2018 Medicare Physician Fee Schedule \(PFS\) final rule](#) on providers of interventional radiology services. The estimates of effect presented here are based on national average rates and Medicare fee for service claims data, the effect of changes on Medicare revenues for any individual practice will be different from what is shown here and dependent on the mix of services the practice provides. This overview is based on and provides additional detail on the changes to Relative Value Units (RVUs) and payment rates in CY 2018 for codes billed by Interventional Radiology (IR) and Diagnostic Radiology (DR). Payment rates reflected are based on national average rates and are not adjusted for geographic factors or other special payment policies.

Highlights of the Final Rule

- The final CY 2018 conversion factor (CF) is \$35.9997. The final CF is 0.3% greater than the CY 2017 CF of \$35.8887.
- Total combined payments to interventional radiology (IR) and diagnostic radiology (DR) for the entire mix of services these specialties billed to Medicare (based on 2016 data) are estimated to increase by about \$14.3 million in CY 2018 relative to 2017. This represents an increase in estimated payments of about 0.3%, reflecting changes in RVUs and a slight increase in the conversion factor.
- Payments made to interventional radiologists alone are expected to increase by about \$3.8 million, or 1.1%.¹
- IR billing is expected to increase by 1.0% for codes billed globally, 1.6% for professional services (26 modifier) and 2.3% for technical services (TC modifier). These increases are larger than those expected for DR due to differences in mix of services billed.
- Payment rates for selective catheter codes will decrease by 9% in the non-facility and 4% in the facility setting due to changes in PE RVUs resulting from the misvalued codes initiative.
- Total payments for catheter insertion codes are expected to remain steady in the non-facility setting while decreasing 8% in the facility setting. The difference in percent change is because the reduction of PE RVUs in the facility setting has a greater impact on payment rates.
- CMS finalized 2017 work RVUs for vascular access codes, resulting in a 2% payment increase in the non-facility and a 10% increase in the facility setting in 2018.

The additional detail section of this memorandum provides further information on these highlights and is accompanied by an Excel file explained below.

¹ 1.1% is based on our analysis; CMS estimates 0% impact on Interventional Radiology. Differences are likely due to rounding.

Supplemental Excel File

To supplement the discussion of the impacts to services in this document, we produced a detailed file to pair with this memo. Refer to this attached workbook for information regarding any code billed by interventional and diagnostic radiology specialties and for additional HCPCS level detail, including utilization and payments for IR alone, DR alone, all other specialties billing these codes, and total payments billed across all specialties. The file includes information displayed in the following ways:

1. A comparison of total payments for specialties of interest from CY 2017 final rule to CY 2018 final rule. Refer to the “Specialty Impact” tab.
2. A summary of total payments for specialties of interest and total payments across all specialties broken down by modifier. Refer to the “Modifier” tab.
3. A comparison of payment rates from CY 2017 final rule to the CY 2018 final rule. Refer to the “HCPCS Mod Summary” tab of the workbook.
4. A breakdown of 2016 utilization by specialties of interest. Refer to the “Volume Detail” tab.
5. A summary of total estimated payments by specialties of interest, all other specialties, and total payments across all specialties. Refer to the “Payment Detail” tab. Total estimated payments are based on volume from the 2016 utilization file published with this final rule.
6. A comparison of work values, PE values, malpractice (MP) values, and payment rates from CY 2017 final rule to the CY 2018 final rule. Refer to the “RVU Detail” tab. This tab also contains helpful flags that identify new, deleted, misvalued, and DRA capped codes.
7. A comparison of PE RVUs and payment rates for CY 2018 with and without phase-in applied. Refer to the “Phase-In RVUs” tab.

Conversion Factor

CMS estimates the CF for CY 2018 at \$35.9996, a growth of 0.31% from the CY 2017 CF of \$35.8887. The CMS calculation of the CF reflects a 0.50% update per MACRA, but also reflects a 0.10% reduction to maintain budget neutrality in the RVU system.

CMS estimates a 0.41% net reduction in expenditures for CY 2018 resulting from adjustments to relative values of misvalued codes (compared to 0.31% in the proposed rule). As this amount still falls below the 0.50% savings threshold, the target recapture amount is calculated by taking the difference between the target for the year and the estimated net reduction in expenses. This results in a CF reduction of 0.09% for CY 2018 necessary to meet the target reduction amounts required under the misvalued codes initiative established by the PAMA.

The CY 2017 CF for anesthesia services is estimated at \$22.1887, which is slightly higher than the proposed amount. This CF reflects an additional adjustment for malpractice.

Change in Total Estimated Payments for Interventional Radiology and Diagnostic Radiology Specialties

For the radiology specialties of interest, projected payments in CY 2018 are expected to increase by \$14.3 million (or 0.3%). Estimated payments to the interventional radiology specialty are estimated to increase by \$3.8 million (or 1.1%), and diagnostic radiology is expected to increase by \$10.4 million (or 0.2%). See Table 1a.

For an additional comparison of how other specialties have been affected by the final rule, refer to Appendix A.

Table 1a: Total Estimated Payments for Services Billed by Selected Radiology Specialties^{2,3}

Specialty Description	Total Payments		2017FR → 2018FR	
	2017FR	2018 FR	\$ Change	% Change
<i>Radiology Specialties</i>	\$ 5,227,923,654	\$ 5,242,224,558	\$ 14,300,904	0.3%
94 Interventional Radiology	\$ 357,872,130	\$ 361,708,809	\$ 3,836,679	1.1%
30 Diagnostic Radiology	\$ 4,870,051,524	\$ 4,880,515,750	\$ 10,464,226	0.2%

Changes in Codes Billed by Specialties of Interest by Modifier

Tables 1b, Interventional Radiology, and 1c, Diagnostic Radiology, highlight changes in total estimated payments by modifier for codes billed by IR and DR. The technical component (TC) codes billed by IR are expected to experience an increase of 2.3%, followed by the professional component (PC) codes with a 1.6% increase. The increases for TC and PC codes billed by diagnostic radiology are expected to increase by 0.7% and 0.4% respectively. The difference in expected total payments by modifier between IR and DR is due primarily to the difference in mix of services billed by each specialty.

Table 1b. Total Estimated Payments for Interventional Radiology by Modifier

Mod	Total Payments 2017F	Total Payments 2018F	Delta	%
Total	\$ 357,872,130	\$ 361,708,809	\$ 3,836,679	1.1%
	\$ 299,748,431	\$ 302,661,538	\$ 2,913,107	1.0%
26	\$ 56,602,385	\$ 57,490,218	\$ 887,833	1.6%
TC	\$ 1,521,315	\$ 1,557,053	\$ 35,738	2.3%
53	\$ -	\$ -	\$ -	

² Throughout this memo, we applied the CY 2017 CF (i.e. \$35.8887) to 2017 final RVUs and the final CY 2018 CF (i.e. \$35.9997) to 2018 final RVUs, to calculate payment rates. The phased in reductions of RVUs are reflected when applicable. Total Estimated Payments are equal to the total RVUs (PE+Work+Malpractice RVUs) multiplied by the conversion factor and volume. Volume is based on 2016 utilization released with the CY 2018 final rule publication.

³ Numbers in table may not add due to rounding.

Table 1c. Total Estimated Payments for Diagnostic Radiology by Modifier

Mod	Total Payments 2017F	Total Payments 2018F	Delta	%
Total	\$ 4,870,051,524	\$ 4,880,515,750	\$ 10,464,226	0.2%
	\$ 1,982,165,209	\$ 1,980,131,420	\$ (2,033,790)	-0.1%
26	\$ 2,803,625,376	\$ 2,815,541,608	\$ 11,916,233	0.4%
TC	\$ 84,260,841	\$ 84,842,624	\$ 581,783	0.7%
53	\$ 98	\$ 98	\$ (0)	-0.4%

Interventional Radiology Code Level Effects of Select Services

The tables below illustrate changes in total RVUs, payment rates, and expected total payments in the non-facility and facility setting for select high volume interventional radiology procedural codes and codes for which SIR submitted comments under the CY 2018 physician fee schedule proposed rule. The discussion and tables are broken into sections by CPT code groupings. The tables present high volume interventional radiology services and codes on which SIR commented only – not all codes in the CPT families are represented in the tables. Also, note that the estimated payments shown are calculated using the utilization file released with the CY 2018 final rule and reflect billing by all specialties. For additional code specific RVUs, payment information, as well as specialty-specific volume/payments, see the accompanying Excel workbook.⁴

Selective Catheter Placement

CMS is finalizing RVUs for the selective catheter code family as proposed. Code 36215 is the most commonly reported code in this family, and all RVUs for code 36215 will decrease substantially causing a 10% reduction to payments in the non-facility setting and 9% in the facility setting. Code 36217 will see a 2% decrease in payment rate in the non-facility setting due to changes in PE inputs. Decreases in the payment rates for codes 36215, 36216, and 36217 are due to the acceptance of the RUC recommended work RVUs, reductions to clinical labor direct input time and the removal of the mobile instrument table the RUC recommended as a direct input. Payment rates for code 36218 will increase by 36% in the non-facility setting due to an increase in clinical labor time and a technologist PACS workstation equipment item, which result in increased PE RVUs. Table 2a highlights the changes in RVUs, and table 2b shows how total payments are expected to change from 2017 to 2018.

⁴ This workbook also includes payment volumes specific to interventional radiologist and diagnostic radiologist.

Table 2a. RVU Changes to Selective Catheter Placement Codes

HCPCS Description	2017 FR					2018 FR					Change	
	Work RVUs	PE RVUs	MP RVUs	Total RVUs	Pay Rate	Work RVUs	PE RVUs	MP RVUs	Total RVUs	Pay Rate	\$	%
Non-Facility												
36215 Place catheter in artery	4.67	26.49	0.68	31.84	\$ 1,142.70	4.17	23.86	0.61	28.64	\$ 1,031.03	\$(111.67)	-10%
36216 Place catheter in artery	5.27	26.67	0.98	32.92	\$ 1,181.46	5.27	24.82	0.97	31.06	\$ 1,118.15	\$ (63.31)	-5%
36217 Place catheter in artery	6.29	46.41	1.18	53.88	\$ 1,933.68	6.29	45.28	1.18	52.75	\$ 1,898.98	\$ (34.70)	-2%
36218 Place catheter in artery	1.01	4.08	0.18	5.27	\$ 189.13	1.01	5.98	0.18	7.17	\$ 258.12	\$ 68.98	36%
Facility												
36215 Place catheter in artery	4.67	1.46	0.68	6.81	\$ 244.40	4.17	1.40	0.61	6.18	\$ 222.48	\$ (21.92)	-9%
36216 Place catheter in artery	5.27	1.65	0.98	7.90	\$ 283.52	5.27	1.71	0.97	7.95	\$ 286.20	\$ 2.68	1%
36217 Place catheter in artery	6.29	1.93	1.18	9.40	\$ 337.35	6.29	2.02	1.18	9.49	\$ 341.64	\$ 4.28	1%
36218 Place catheter in artery	1.01	0.32	0.18	1.51	\$ 54.19	1.01	0.32	0.18	1.51	\$ 54.36	\$ 0.17	0%

Table 2b. Changes in Total Estimated Payments for Selective Catheter Placement Codes⁵

HCPCS Description	2017FR	2018 FR	Change	
	Total Payments	Total Payments	\$	%
Non-Facility				
	\$ 23,826,333	\$ 21,626,738	\$ (2,199,595)	-9%
36215 Place catheter in artery	\$ 21,983,407	\$ 19,835,123	\$ (2,148,284)	-10%
36216 Place catheter in artery	\$ 763,528	\$ 722,614	\$ (40,914)	-5%
36217 Place catheter in artery	\$ 1,055,946	\$ 1,036,994	\$ (18,951)	-2%
36218 Place catheter in artery	\$ 23,453	\$ 32,007	\$ 8,554	36%
Facility				
	\$ 3,344,798	\$ 3,197,196	\$ (147,603)	-4%
36215 Place catheter in artery	\$ 1,829,063	\$ 1,664,984	\$ (164,079)	-9%
36216 Place catheter in artery	\$ 652,013	\$ 658,167	\$ 6,154	1%
36217 Place catheter in artery	\$ 796,904	\$ 807,020	\$ 10,116	1%
36218 Place catheter in artery	\$ 66,819	\$ 67,025	\$ 206	0%

Treatment of Incompetent Veins

CMS is finalizing work RVUs and direct inputs as proposed for incompetent vein codes. They did not adopt any of the proposed alternatives, nor did they assign code 36483 a “Bundled” status indicator. CMS accepted the RUC recommended work RVUs for code 36471, which decreases the work RVU from 1.65 to 1.50. However, CMS also finalized adjustments to the direct PE inputs which create three new supply codes resulting in increases to the non-facility PE RVU. For this reason, total RVUs for this service increase and the corresponding payment rate for code 36471 increases by 9% in the non-facility setting, despite the reduction in work RVUs. The reduction in work RVUs (without a counteracting increase in facility PE RVUs) for this service results in a reduction of 24% in the facility setting. Code 36470 will see a decrease in payment rate, 28% in the non-facility, due to a reduction of work RVUs and direct PE inputs, and 54% in the facility setting. Because codes 36470 and 36471 are revised they are not subject to the phase-in policy which caps the decrease at 19% in the first year.

⁵ This table, and all subsequent tables, reflect total payments that are calculated using total 2016 utilization across all specialties and are not limited to interventional and diagnostic radiology volume.

Table 3a: RVU Changes to Treatment of Incompetent Veins

HCPCS Description	2017 FR					2018 FR					Change	
	Work RVUs	PE RVUs	MP RVUs	Total RVUs	Pay Rate	Work RVUs	PE RVUs	MP RVUs	Total RVUs	Pay Rate	\$	%
Non-Facility												
36465 Njx noncmpnd sclrsnt 1 vein						2.35	42.29	0.48	45.12	\$ 1,624.30	\$ 1,624.30	
36466 Njx noncmpnd sclrsnt mlt vn						3.00	43.54	0.60	47.14	\$ 1,697.02	\$ 1,697.02	
36470 Njx sclrsnt 1 incmptnt vein	1.10	2.89	0.20	4.19	\$ 150.37	0.75	2.11	0.14	3.00	\$ 108.00	\$ (42.37)	-28%
36471 Njx sclrsnt mlt incmptnt vn	1.65	3.02	0.30	4.97	\$ 178.37	1.50	3.63	0.26	5.39	\$ 194.04	\$ 15.67	9%
36482 Endoven ther chem adhes 1st						3.50	55.86	0.70	60.06	\$ 2,162.14	\$ 2,162.14	
36483 Endoven ther chem adhes sbsq						1.75	1.99	0.34	4.08	\$ 146.88	\$ 146.88	
Facility												
36465 Njx noncmpnd sclrsnt 1 vein						2.35	0.63	0.48	3.46	\$ 124.56	\$ 124.56	
36466 Njx noncmpnd sclrsnt mlt vn						3.00	0.80	0.60	4.40	\$ 158.40	\$ 158.40	
36470 Njx sclrsnt 1 incmptnt vein	1.10	1.10	0.20	2.40	\$ 86.13	0.75	0.22	0.14	1.11	\$ 39.96	\$ (46.17)	-54%
36471 Njx sclrsnt mlt incmptnt vn	1.65	0.95	0.30	2.90	\$ 104.08	1.50	0.45	0.26	2.21	\$ 79.56	\$ (24.52)	-24%
36482 Endoven ther chem adhes 1st						3.50	0.93	0.70	5.13	\$ 184.68	\$ 184.68	
36483 Endoven ther chem adhes sbsq						1.75	0.47	0.34	2.56	\$ 92.16	\$ 92.16	

Table 3b. Changes in Total Estimated Payments for the Treatment of Incompetent Veins

HCPCS Description	2017 FR	2018 FR	Change	
	Total Payments	Total Payments	\$	%
Non-Facility				
	\$ 24,669,928	\$ 29,960,409		
36465 Njx noncmpnd sclrsnt 1 vein		\$ 1,719,681		
36466 Njx noncmpnd sclrsnt mlt vn		\$ 1,078,983		
36470 Njx sclrsnt 1 incmptnt vein	\$ 1,677,896	\$ 1,205,070	\$ (472,826)	-28%
36471 Njx sclrsnt mlt incmptnt vn	\$ 22,992,031	\$ 25,012,072	\$ 2,020,040	9%
36482 Endoven ther chem adhes 1st		\$ 913,784		
36483 Endoven ther chem adhes sbsq		\$ 30,819		
Facility				
	\$ 344,920	\$ 432,245		
36465 Njx noncmpnd sclrsnt 1 vein		\$ 74,674		
36466 Njx noncmpnd sclrsnt mlt vn		\$ 57,033		
36470 Njx sclrsnt 1 incmptnt vein	\$ 60,799	\$ 28,206	\$ (32,592)	-54%
36471 Njx sclrsnt mlt incmptnt vn	\$ 284,121	\$ 217,189	\$ (66,932)	-24%
36482 Endoven ther chem adhes 1st		\$ 44,090		
36483 Endoven ther chem adhes sbsq		\$ 11,053		

Mechanochemical Vein Ablation

Pay rates for mechanochemical vein ablation will increase slightly resulting from changes to the PE and MP RVUs in the non-facility setting, 1-2%, and MP RVUs in the facility setting, 3%. See Tables 4a and 4b for greater detail. CMS will not include the additional Clarivein kit to code 36474.

Table 4a. RVU Changes to Mechanochemical Vein Ablation Codes

HCPCS Description	2017 FR					2018 FR					Change	
	Work RVUs	PE RVUs	MP RVUs	Total RVUs	Pay Rate	Work RVUs	PE RVUs	MP RVUs	Total RVUs	Pay Rate	\$	%
Non-Facility												
36473 Endovenous mchnchem 1st vein	3.50	38.36	0.56	42.42	\$ 1,522.40	3.50	38.62	0.70	42.82	\$ 1,541.50	\$ 19.10	1%
36474 Endovenous mchnchem add-on	1.75	5.74	0.28	7.77	\$ 278.86	1.75	5.77	0.35	7.87	\$ 283.32	\$ 4.46	2%
Facility												
36473 Endovenous mchnchem 1st vein	3.50	0.95	0.56	5.01	\$ 179.80	3.50	0.93	0.70	5.13	\$ 184.68	\$ 4.88	3%
36474 Endovenous mchnchem add-on	1.75	0.48	0.28	2.51	\$ 90.08	1.75	0.47	0.35	2.57	\$ 92.52	\$ 2.44	3%

Table 4b. Changes in Total Estimated Payments for Mechanochemical Vein Ablation Codes

HCPCS Description	2017 FR	2018 FR	Change	
	Total Payments	Total Payments	\$	%
Non-Facility				
	\$ 765,389	\$ 775,402	\$ 10,014	1%
36473 Endovenous mchnchem 1st vein	\$ 646,898	\$ 655,015	\$ 8,118	1%
36474 Endovenous mchnchem add-on	\$ 118,491	\$ 120,387	\$ 1,896	2%
Facility				
	\$ 64,802	\$ 66,558	\$ 1,756	3%
36473 Endovenous mchnchem 1st vein	\$ 43,172	\$ 44,343	\$ 1,171	3%
36474 Endovenous mchnchem add-on	\$ 21,629	\$ 22,215	\$ 585	3%

Endovascular Repair

In September of 2016 the CPT Editorial Panel reviewed codes in for endovascular repair and created 16 new codes, revised four existing codes, and deleted 14 other codes related to endovascular repair procedures. CMS finalized work and PE inputs for all procedures in this code family as proposed. RVUs for new codes in 2018 and the two revised codes billed by IR and DR are listed on table 5a. Revised codes 34812 and 34843 will experience a significant decrease in payment rate, 39% and 52% respectively, due to decreased work, PE, and MP RVUs. Because these codes are revised, they are not subject to the phase-in policy which caps the decrease at 19% in the first year. As these codes are predominantly performed in the facility setting, the facility RVUs are shown below in table 5a and total estimated payments in the facility are shown in table 5b.

Table 5a. RVU Changes to Endovascular Repair Codes

HCPCS	Description	2017 FR					2018 FR					Change	
		Work RVUs	PE RVUs	MP RVUs	Total RVUs	Pay Rate	Work RVUs	PE RVUs	MP RVUs	Total RVUs	Pay Rate	\$	%
Facility													
34701	Evasc rpr a-ao ndgft						23.71	7.10	4.91	35.72	\$ 1,285.91	\$ 1,285.91	
34702	Evasc rpr a-ao ndgft rpt						36.00	10.11	7.25	53.36	\$ 1,920.94	\$ 1,920.94	
34703	Evasc rpr a-unilac ndgft						26.52	7.78	5.95	40.25	\$ 1,448.98	\$ 1,448.98	
34704	Evasc rpr a-unilac ndgft rpt						45.00	12.23	9.72	66.95	\$ 2,410.17	\$ 2,410.17	
34705	Evac rpr a-biiliac ndgft						29.58	8.56	6.20	44.34	\$ 1,596.22	\$ 1,596.22	
34706	Evasc rpr a-biiliac rpt						45.00	12.34	9.40	66.74	\$ 2,402.61	\$ 2,402.61	
34707	Evasc rpr ilio-iliac ndgft						22.28	6.42	4.61	33.31	\$ 1,199.15	\$ 1,199.15	
34708	Evasc rpr ilio-iliac rpt						36.50	9.69	7.42	53.61	\$ 1,929.94	\$ 1,929.94	
34709	Plmt xtn prosth evasc rpr						6.50	1.49	1.39	9.38	\$ 337.68	\$ 337.68	
34710	Dlyd plmt xtn prosth 1st vsl						15.00	5.08	3.17	23.25	\$ 836.99	\$ 836.99	
34711	Dlyd plmt xtn prosth ea addl						6.00	1.37	1.29	8.66	\$ 311.76	\$ 311.76	
34712	Tcat dlvr enhncd fixj dev						12.00	5.49	2.38	19.87	\$ 715.31	\$ 715.31	
34713	Perq access & clsr fem art						2.50	0.73	0.51	3.74	\$ 134.64	\$ 134.64	
34714	Opn fem art expos cndt crtj						5.25	1.57	1.03	7.85	\$ 282.60	\$ 282.60	
34715	Opn ax/subcla art expos						6.00	1.65	1.12	8.77	\$ 315.72	\$ 315.72	
34716	Opn ax/subcla art expos cndt						7.19	2.30	1.40	10.89	\$ 392.04	\$ 392.04	
34812	Opn fem art expos	6.74	1.59	1.55	9.88	\$ 354.58	4.13	0.95	0.94	6.02	\$ 216.72	\$ (137.86)	-39%
34834	Opn brach art expos	5.34	1.41	1.22	7.97	\$ 286.03	2.65	0.54	0.60	3.79	\$ 136.44	\$ (149.59)	-52%

Table 5b. Changes in Total Estimated Payments for Endovascular Repair

HCPCS	Description	2017 FR	2018 FR	Change	
		Total Payments	Total Payments	\$	%
Facility		\$ 5,505,006	\$ 51,601,506	\$ 46,096,500	
34701	Evasc rpr a-ao ndgft		\$ 640,510	\$ 640,510	
34702	Evasc rpr a-ao ndgft rpt		\$ 168,851	\$ 168,851	
34703	Evasc rpr a-unilac ndgft		\$ 907,716	\$ 907,716	
34704	Evasc rpr a-unilac ndgft rpt		\$ 266,445	\$ 266,445	
34705	Evac rpr a-biiliac ndgft		\$ 32,458,398	\$ 32,458,398	
34706	Evasc rpr a-biiliac rpt		\$ 8,621,754	\$ 8,621,754	
34707	Evasc rpr ilio-iliac ndgft		\$ 879,634	\$ 879,634	
34708	Evasc rpr ilio-iliac rpt		\$ 249,831	\$ 249,831	
34709	Plmt xtn prosth evasc rpr		\$ 805,358	\$ 805,358	
34710	Dlyd plmt xtn prosth 1st vsl		\$ 1,862,413	\$ 1,862,413	
34711	Dlyd plmt xtn prosth ea addl		\$ 743,539	\$ 743,539	
34712	Tcat dlvr enhncd fixj dev		\$ 197,905	\$ 197,905	
34713	Perq access & clsr fem art		\$ 350,094	\$ 350,094	
34714	Opn fem art expos cndt crtj		\$ 51,139	\$ 51,139	
34715	Opn ax/subcla art expos		\$ 18,716	\$ 18,716	
34716	Opn ax/subcla art expos cndt		\$ 29,532	\$ 29,532	
34812	Opn fem art expos	\$ 5,393,550	\$ 3,296,509	\$ (2,097,042)	-39%
34834	Opn brach art expos	\$ 111,456	\$ 53,165	\$ (58,291)	-52%

Catheter Insertion

CMS finalized work and PE inputs as proposed for codes 36555 and 36556 for catheter insertion. Work and MP RVUs for code 36556 are the same regardless of setting, and the PE RVU was reduced in both settings. However, the reduction of the PE RVU has a larger effect on the payment rate in the facility setting, and it triggers the mandated phase-in requirement, which limits the reduction to a -19% maximum in the first year. See Table 6a. Payment for code 36556 will decrease by 10% in the non-facility setting and 19% in the facility.

CMS accepted the RUC recommended work values for code 36569, decreasing the work RVU from 1.82 to 1.70. CMS suggested removing the direct equipment line item exam table from valuation for this code; however, they did not finalize this as proposed. The facility PE RVU will decrease from 0.67 to 0.61 resulting in a 7% decrease in pay rate as seen Table 6a. In the non-facility setting, the downward adjustment of the work and MP RVU causes a 1% decrease to payments despite the slight increase in PE RVU.

Table 6a. RVU Changes for Catheter Insertion Codes

HCPCS	Description	2017 FR					2018 FR					Change	
		Work RVUs	PE RVUs	MP RVUs	Total RVUs	Pay Rate	Work RVUs	PE RVUs	MP RVUs	Total RVUs	Pay Rate	\$	%
Non-Facility													
36555	Insert non-tunnel cv cath	2.43	3.21	0.19	5.83	\$ 209.23	1.93	3.19	0.15	5.27	\$ 189.72	\$ (19.51)	-9%
36556	Insert non-tunnel cv cath	2.50	3.85	0.29	6.64	\$ 238.30	1.75	4.02	0.20	5.97	\$ 214.92	\$ (23.38)	-10%
36558	Insert tunneled cv cath	4.59	15.14	0.62	20.35	\$ 730.34	4.59	15.11	0.60	20.30	\$ 730.79	\$ 0.46	0%
36561	Insert tunneled cv cath	5.79	24.15	0.99	30.93	\$ 1,110.04	5.79	24.08	0.96	30.83	\$ 1,109.87	\$ (0.17)	0%
36569	Insert picc cath	1.82	5.12	0.16	7.10	\$ 254.81	1.70	5.18	0.15	7.03	\$ 253.08	\$ (1.73)	-1%
Facility													
36555	Insert non-tunnel cv cath	2.43	0.45	0.19	3.07	\$ 110.18	1.93	0.41	0.15	2.49	\$ 89.64	\$ (20.54)	-19%
36556	Insert non-tunnel cv cath	2.50	0.69	0.29	3.48	\$ 124.89	1.75	0.87	0.20	2.82	\$ 101.52	\$ (23.37)	-19%
36558	Insert tunneled cv cath	4.59	2.42	0.62	7.63	\$ 273.83	4.59	2.39	0.60	7.58	\$ 272.88	\$ (0.95)	0%
36561	Insert tunneled cv cath	5.79	3.07	0.99	9.85	\$ 353.50	5.79	3.04	0.96	9.79	\$ 352.44	\$ (1.07)	0%
36569	Insert picc cath	1.82	0.67	0.16	2.65	\$ 95.11	1.70	0.61	0.15	2.46	\$ 88.56	\$ (6.55)	-7%

Table 6b. Changes in Total Estimated Payments for Catheter Insertion Codes

HCPCS Description	2017 FR		2018 FR		Change	
	Total Payments	Total Payments	\$	%		
Non-Facility	\$ 15,799,550	\$ 15,765,260	\$ (34,290)	0%		
36555 Insert non-tunnel cv cath	\$ 209	\$ 190	\$ (20)	-9%		
36556 Insert non-tunnel cv cath	\$ 315,868	\$ 284,873	\$ (30,995)	-10%		
36558 Insert tunneled cv cath	\$ 6,266,932	\$ 6,270,852	\$ 3,920	0%		
36561 Insert tunneled cv cath	\$ 8,345,983	\$ 8,344,707	\$ (1,277)	0%		
36569 Insert picc cath	\$ 870,558	\$ 864,638	\$ (5,919)	-1%		
Facility	\$ 147,718,961	\$ 135,511,764	\$ (12,207,196)	-8%		
36555 Insert non-tunnel cv cath	\$ 3,746	\$ 3,048	\$ (698)	-19%		
36556 Insert non-tunnel cv cath	\$ 58,301,150	\$ 47,390,025	\$ (10,911,125)	-19%		
36558 Insert tunneled cv cath	\$ 31,197,409	\$ 31,088,742	\$ (108,667)	0%		
36561 Insert tunneled cv cath	\$ 42,855,857	\$ 42,726,429	\$ (129,428)	0%		
36569 Insert picc cath	\$ 15,360,798	\$ 14,303,521	\$ (1,057,277)	-7%		

Bone Marrow Aspiration

CMS finalized the work RVUs and direct PE inputs as proposed for bone marrow aspiration. They did not, however, finalize the change in global periods from “XXX” to “0-day”, nor did they finalize the changes to pre-service work time. Payment rates for code 38220 will increase by 2% in the non-facility and 13% in the facility. Code 38221 will decrease by 8% in the non-facility and 6% in the facility.

Table 7a. RVU Changes for Bone Marrow Aspiration Codes

HCPCS Description	2017 FR					2018 FR					Change	
	Work RVUs	PE RVUs	MP RVUs	Total RVUs	Pay Rate	Work RVUs	PE RVUs	MP RVUs	Total RVUs	Pay Rate	\$	%
Non-Facility												
20939 Bone marrow aspir bone grfg						1.16	0.59	0.19	1.94	\$ 69.84	\$ 69.84	
38220 Dx bone marrow aspirations	1.08	3.54	0.15	4.77	\$ 171.19	1.20	3.46	0.18	4.84	\$ 174.24	\$ 3.05	2%
38221 Dx bone marrow biopsies	1.37	3.31	0.09	4.77	\$ 171.19	1.28	2.99	0.09	4.36	\$ 156.96	\$ (14.23)	-8%
38222 Dx bone marrow bx & aspir						1.44	3.30	0.10	4.84	\$ 174.24	\$ 174.24	
Facility												
20939 Bone marrow aspir bone grfg						1.16	0.59	0.19	1.94	\$ 69.84	\$ 69.84	
38220 Dx bone marrow aspirations	1.08	0.55	0.15	1.78	\$ 63.88	1.20	0.62	0.18	2.00	\$ 72.00	\$ 8.12	13%
38221 Dx bone marrow biopsies	1.37	0.69	0.09	2.15	\$ 77.16	1.28	0.65	0.09	2.02	\$ 72.72	\$ (4.44)	-6%
38222 Dx bone marrow bx & aspir						1.44	0.70	0.10	2.24	\$ 80.64	\$ 80.64	

Table 7b. Changes in Total Estimated Payments for Bone Marrow Aspiration Codes

		2017 FR	2018 FR	Change	
HCCPS	Description	Total Payments	Total Payments	\$	%
Non-Facility		\$ 5,299,956	\$ 8,786,570	\$ 3,486,614	66%
20939	Bone marrow aspir bone grfg		\$ 271,709	\$ 271,709	
38220	Dx bone marrow aspirations	\$ 533,405	\$ 542,905	\$ 9,500	2%
38221	Dx bone marrow biopsies	\$ 4,766,552	\$ 4,370,311	\$ (396,240)	-8%
38222	Dx bone marrow bx & aspir		\$ 3,601,645	\$ 3,601,645	
Facility		\$ 4,056,892	\$ 7,353,460	\$ 3,296,568	81%
20939	Bone marrow aspir bone grfg		\$ 729,712	\$ 729,712	
38220	Dx bone marrow aspirations	\$ 615,748	\$ 693,989	\$ 78,242	13%
38221	Dx bone marrow biopsies	\$ 3,441,144	\$ 3,243,066	\$ (198,079)	-6%
38222	Dx bone marrow bx & aspir		\$ 2,686,693	\$ 2,686,693	

Dialysis Vascular Access Codes

CMS finalized the 2017 RUC recommended work RVUs for dialysis vascular access codes, which will cause increased payments for all codes in both settings. This is in contrast with what CMS had proposed, in which case payment rates for all codes would have decreased. Table 8a includes the 2018 final RVUs and table 8b highlights expected total payments in 2018.

Table 8a. RVU Changes for Dialysis Vascular Access Codes

		2017 FR					2018 FR					Change	
HCCPS	Description	Work RVUs	PE RVUs	MP RVUs	Total RVUs	Pay Rate	Work RVUs	PE RVUs	MP RVUs	Total RVUs	Pay Rate	\$	%
Non-Facility													
36901	Intro cath dialysis circuit	2.82	12.89	0.47	16.18	\$ 580.68	3.36	13.14	0.48	16.98	\$ 611.27	\$ 30.59	5%
36902	Intro cath dialysis circuit	4.24	29.47	0.70	34.41	\$ 1,234.93	4.83	29.84	0.67	35.34	\$ 1,272.23	\$ 37.30	3%
36903	Intro cath dialysis circuit	5.85	150.99	0.96	157.80	\$ 5,663.24	6.39	151.70	0.95	159.04	\$ 5,725.38	\$ 62.14	1%
36904	Thrmc/nfs dialysis circuit	6.73	42.33	1.11	50.17	\$ 1,800.54	7.50	42.82	1.04	51.36	\$ 1,848.94	\$ 48.40	3%
36905	Thrmc/nfs dialysis circuit	8.46	54.34	1.40	64.20	\$ 2,304.05	9.00	54.83	1.27	65.10	\$ 2,343.57	\$ 39.52	2%
36906	Thrmc/nfs dialysis circuit	9.88	179.83	1.64	191.35	\$ 6,867.30	10.42	181.14	1.46	193.02	\$ 6,948.64	\$ 81.34	1%
36907	Balo angiop ctr dialysis seg	2.48	17.70	0.41	20.59	\$ 738.95	3.00	17.96	0.43	21.39	\$ 770.03	\$ 31.08	4%
36908	Stent plmt ctr dialysis seg	3.73	71.49	0.62	75.84	\$ 2,721.80	4.25	71.84	0.66	76.75	\$ 2,762.97	\$ 41.17	2%
36909	Dialysis circuit embolj	3.48	51.26	0.58	55.32	\$ 1,985.36	4.12	50.97	0.69	55.78	\$ 2,008.06	\$ 22.69	1%
Facility													
36901	Intro cath dialysis circuit	2.82	0.92	0.47	4.21	\$ 151.09	3.36	1.06	0.48	4.90	\$ 176.40	\$ 25.31	17%
36902	Intro cath dialysis circuit	4.24	1.33	0.70	6.27	\$ 225.02	4.83	1.48	0.67	6.98	\$ 251.28	\$ 26.26	12%
36903	Intro cath dialysis circuit	5.85	1.77	0.96	8.58	\$ 307.93	6.39	1.90	0.95	9.24	\$ 332.64	\$ 24.71	8%
36904	Thrmc/nfs dialysis circuit	6.73	2.04	1.11	9.88	\$ 354.58	7.50	2.24	1.04	10.78	\$ 388.08	\$ 33.50	9%
36905	Thrmc/nfs dialysis circuit	8.46	2.54	1.40	12.40	\$ 445.02	9.00	2.67	1.27	12.94	\$ 465.83	\$ 20.81	5%
36906	Thrmc/nfs dialysis circuit	9.88	2.95	1.64	14.47	\$ 519.31	10.42	3.07	1.46	14.95	\$ 538.19	\$ 18.88	4%
36907	Balo angiop ctr dialysis seg	2.48	0.72	0.41	3.61	\$ 129.56	3.00	0.85	0.43	4.28	\$ 154.08	\$ 24.52	19%
36908	Stent plmt ctr dialysis seg	3.73	1.06	0.62	5.41	\$ 194.16	4.25	1.19	0.66	6.10	\$ 219.60	\$ 25.44	13%
36909	Dialysis circuit embolj	3.48	1.08	0.58	5.14	\$ 184.47	4.12	1.23	0.69	6.04	\$ 217.44	\$ 32.97	18%

Table 8b. Changes in Total Estimated Payments for Dialysis Vascular Access Codes

HCPCS	Mod Description	2017 FR		2018 FR		Change	
		Total Payments	Total Payments	Total Payments	Total Payments	\$	%
Non-Facility		\$ 453,657,344	\$ 463,587,411	\$ 9,930,067	2%		
36901	Intro cath dialysis circuit	\$ 19,820,206	\$ 20,864,466	\$ 1,044,260	5%		
36902	Intro cath dialysis circuit	\$ 165,972,021	\$ 170,984,484	\$ 5,012,463	3%		
36903	Intro cath dialysis circuit	\$ 139,042,092	\$ 140,567,723	\$ 1,525,631	1%		
36904	Thrmbc/nfs dialysis circuit	\$ 19,205,418	\$ 19,721,713	\$ 516,295	3%		
36905	Thrmbc/nfs dialysis circuit	\$ 39,321,916	\$ 39,996,371	\$ 674,454	2%		
36906	Thrmbc/nfs dialysis circuit	\$ 58,600,068	\$ 59,294,159	\$ 694,091	1%		
36907	Balo angiop ctr dialysis seg	\$ 10,675,793	\$ 11,124,860	\$ 449,066	4%		
36908	Stent plmt ctr dialysis seg	\$ 581,322	\$ 590,115	\$ 8,793	2%		
36909	Dialysis circuit embolj	\$ 438,507	\$ 443,520	\$ 5,013	1%		
Facility		\$ 39,956,854	\$ 44,022,981	\$ 4,066,127	10%		
36901	Intro cath dialysis circuit	\$ 3,291,400	\$ 3,842,683	\$ 551,283	17%		
36902	Intro cath dialysis circuit	\$ 19,301,304	\$ 21,553,335	\$ 2,252,031	12%		
36903	Intro cath dialysis circuit	\$ 6,139,730	\$ 6,632,449	\$ 492,719	8%		
36904	Thrmbc/nfs dialysis circuit	\$ 2,413,824	\$ 2,641,845	\$ 228,021	9%		
36905	Thrmbc/nfs dialysis circuit	\$ 4,847,192	\$ 5,073,910	\$ 226,718	5%		
36906	Thrmbc/nfs dialysis circuit	\$ 2,828,180	\$ 2,931,026	\$ 102,846	4%		
36907	Balo angiop ctr dialysis seg	\$ 1,082,702	\$ 1,287,614	\$ 204,911	19%		
36908	Stent plmt ctr dialysis seg	\$ 37,519	\$ 42,435	\$ 4,916	13%		
36909	Dialysis circuit embolj	\$ 15,003	\$ 17,684	\$ 2,681	18%		

Angiography of Extremities

CMS finalized adjustments to the work and PE RVUs for codes 75710 and 75716 for angiography of extremities. The increase in work RVUs for these codes is driving large increases in professional component reimbursement, but the decrease in the PE RVU values is dulling this increase when the code is reported as a global service (5-7% increases). The TC payment rate alone will be capped at a 19% decrease in 2018.

Table 9a. RVU Changes for Angiography of Extremities Codes

HCPCS	Modifier	Description	2017 FR					2018 FR					Change	
			Work RVUs	PE RVUs	MP RVUs	Total RVUs	Pay Rate	Work RVUs	PE RVUs	MP RVUs	Total RVUs	Pay Rate	\$	%
Non-Facility														
75710		Artery x-rays arm/leg	1.14	3.29	0.15	4.58	\$ 164.37	1.75	2.90	0.22	4.87	\$ 175.32	\$ 10.95	7%
75710	26	Artery x-rays arm/leg	1.14	0.33	0.13	1.60	\$ 57.42	1.75	0.49	0.21	2.45	\$ 88.20	\$ 30.78	54%
75710	TC	Artery x-rays arm/leg		2.96	0.02	2.98	\$ 106.95		2.41	0.01	2.42	\$ 87.12	\$ (19.83)	-19%
75716		Artery x-rays arms/legs	1.31	3.80	0.16	5.27	\$ 189.13	1.97	3.35	0.21	5.53	\$ 199.08	\$ 9.94	5%
75716	26	Artery x-rays arms/legs	1.31	0.38	0.13	1.82	\$ 65.32	1.97	0.57	0.20	2.74	\$ 98.64	\$ 33.32	51%
75716	TC	Artery x-rays arms/legs		3.42	0.03	3.45	\$ 123.82		2.78	0.01	2.79	\$ 100.44	\$ (23.38)	-19%
Facility														
75710	26	Artery x-rays arm/leg	1.14	0.33	0.13	1.60	\$ 57.42	1.75	0.49	0.21	2.45	\$ 88.20	\$ 30.78	54%
75716	26	Artery x-rays arms/legs	1.31	0.38	0.13	1.82	\$ 65.32	1.97	0.57	0.20	2.74	\$ 98.64	\$ 33.32	51%

Table 9b. Changes in Total Estimated Payments for Angiography of Extremities Codes

HCPCS	Mod	Description	2017 FR		Change	
			Total Payments	Total Payments	\$	%
<i>Non-Facility</i>			\$ 13,590,425	\$ 14,473,044	\$ 882,619	6%
75710		Artery x-rays arm/leg	\$ 9,246,219	\$ 9,862,059	\$ 615,840	7%
75710	26	Artery x-rays arm/leg	\$ 121,677	\$ 186,894	\$ 65,217	54%
75710	TC	Artery x-rays arm/leg	\$ 105,580	\$ 86,005	\$ (19,576)	-19%
75716		Artery x-rays arms/legs	\$ 3,801,927	\$ 4,001,826	\$ 199,899	5%
75716	26	Artery x-rays arms/legs	\$ 115,481	\$ 174,394	\$ 58,912	51%
75716	TC	Artery x-rays arms/legs	\$ 199,541	\$ 161,866	\$ (37,674)	-19%
<i>Facility</i>			\$ 8,889,114	\$ 13,555,171	\$ 4,666,056	52%
75710	26	Artery x-rays arm/leg	\$ 5,082,414	\$ 7,806,495	\$ 2,724,081	54%
75716	26	Artery x-rays arms/legs	\$ 3,806,700	\$ 5,748,675	\$ 1,941,975	51%

Appendix A: Select Specialty Impacts

Specialty Description	Total Payments		2017FR → 2018FR	
	2017FR	2018 FR	\$ Change	% Change
<i>Radiology Specialties</i>	\$ 9,166,381,845	\$ 9,181,763,846	\$ 15,382,001	0.2%
30 Diagnostic Radiology	\$ 4,870,051,524	\$ 4,880,515,750	\$ 10,464,226	0.2%
36 Nuclear Medicine	\$ 49,973,374	\$ 50,253,301	\$ 279,927	0.6%
47 Independent Diagnostic Testing Facility (IDTF)	\$ 762,846,663	\$ 731,679,520	\$ (31,167,143)	-4.1%
76 Peripheral Vascular Disease	\$ 17,284,743	\$ 17,468,760	\$ 184,017	1.1%
77 Vascular Surgery	\$ 1,098,390,856	\$ 1,100,626,227	\$ 2,235,372	0.2%
78 Cardiac Surgery	\$ 311,868,183	\$ 312,219,859	\$ 351,676	0.1%
92 Radiation Oncology	\$ 1,698,094,373	\$ 1,727,291,620	\$ 29,197,247	1.7%
94 Interventional Radiology	\$ 357,872,130	\$ 361,708,809	\$ 3,836,679	1.1%