

August 31, 2021

Chiquita Brooks-LaSure
Administrator
Centers for Medicare & Medicaid Services
Department of Health and Human Services
Attention: CMS-1751-P
Mail Stop C4-26-05
7500 Security Boulevard
Baltimore, MD 21244-1850

Re: 2022 Proposed PFS Practice Expense RVU Methodology

Dear Administrator Brooks-LaSure:

Teleflex Incorporated appreciates the opportunity to comment on CMS's 2022 Physician Fee Schedule Proposed Rule.

Teleflex manufactures the UroLift® System, which is the only implant device that enables the prostatic urethral lift (PUL) procedure to treat benign prostatic hyperplasia (BPH). To date, over 300,000 patients have been treated with UroLift PUL. This service is currently performed by physicians in the office, as well as in hospital outpatient or ASC settings.

It is CMS's proposal to update the direct costs per minute rates for clinical labor, reflecting a wage inflation that CMS has not accounted for in its direct practice expense inputs in approximately 20 years. What explicitly concerns us about CMS' proposal to adjust the clinical labor rates, is the resulting reduction of non-facility (NF) practice expenses overall for UroLift PUL and other device intensive office-based procedures. Implementing as proposed will adversely affect the ability of physicians to offer PUL to Medicare beneficiaries in the office setting, causing these patients to go to the HOPD or ASC. If the Rule is implemented as proposed, the resulting shift in site of service would unnecessarily deny Medicare beneficiaries access to a minimally invasive office treatment, increase complexity for providers, and could ultimately increase CMS spending for BPH care and other specialties.

Proposed Change to PUL Payment

In the Proposed Rule, CMS proposes the following changes to the two procedure codes that physicians use to bill for implanting UroLift:

- | | |
|-------|---|
| 52441 | <i>Cystourethroscopy, with insertion of permanent adjustable transprostatic implant, single implant</i> |
| 52442 | <i>Each additional permanent adjustable transprostatic implant</i> |

Code	Non-Facility		
	2021 Payment	2022 Payment	% Change
52441	\$1,433	\$1,155	-19.4%
52442	\$1,021	\$796	-22.0%

A typical 4-implant PUL procedure involves billing 52441 one time and add-on code 52442 three times. In the non-facility (office) setting, a physician is proposed to receive \$3,543 for a 4-implant procedure, as opposed to \$4,493 in 2021. This dramatic payment reduction of \$950/procedure would make offering this procedure in the office setting inviable.

PUL Would Not Be Available in the Office Setting

As part of the Proposed Rule, CMS released the Direct Practice Expense Supply Inputs for each code. The supply inputs for 52441 are shown below.

Direct PE Inputs for 52441: Supplies (2022P)					
Description	Category	CMS Code	Unit	Price	Qty
drape-towel, sterile 18in x 26in	Gown, Drape	SB019	item	0.47	2
gown, staff, impervious	Gown, Drape	SB027	item	1.186	1
swab-pad, alcohol	Pharmacy, NonRx	SJ053	item	0.04	1
pack, cleaning and disinfecting, endoscope	Kit, Pack, Tray	SA042	pack	19.43	1
drape, sterile, for Mayo stand	Gown, Drape	SB012	item	1.07	1
shoe covers, surgical	Gown, Drape	SB039	pair	0.1	2
cap, surgical	Gown, Drape	SB001	item	1.14	2
kit, scissors and clamp	Kit, Pack, Tray	SA027	kit	0.82	1
tray, catheter insertion (w-o catheter)	Kit, Pack, Tray	SA063	tray	1.27	2
catheter, straight	Accessory, Procedure	SD030	item	2.76	1
pack, minimum multi-specialty visit	Kit, Pack, Tray	SA048	pack	5.02	1
gloves, sterile	Gown, Drape	SB024	pair	0.91	1
Urolift Implant and implantation device	Accessory, Procedure	SD291	item	875	1
pack, urology cystoscopy visit	Kit, Pack, Tray	SA058	pack	113.7	1
sodium chloride 0.9% irrigation (500-1000ml uou)	Pharmacy, Rx	SH069	item	3.34	1
lidocaine 2% jelly, topical (Xylocaine)	Pharmacy, Rx	SH048	ml	1.04	30
syringe, Toomey	Hypodermic, IV	SC062	item	3.35	1
needle, 18-26g 1.5-3.5in, spinal	Hypodermic, IV	SC028	item	9.96	1
needle, 18-27g	Hypodermic, IV	SC029	item	0.04	1
syringe 20ml	Hypodermic, IV	SC053	item	0.83	1
lidocaine 1%-2% inj (Xylocaine)	Pharmacy, Rx	SH047	ml	0.06	20

sanitizing cloth-wipe (surface, instruments, equipment)	Infection Control	SM022	item	0.07	4
leg or urinary drainage bag	Pharmacy, NonRx	SJ031	item	4.16	1
mask, surgical, with face shield	Gown, Drape	SB034	item	3.4	1
lubricating jelly (K-Y) (5gm uou)	Pharmacy, NonRx	SJ032	item	0.54	1
catheter, Foley	Accessory, Procedure	SD024	item	10.85	1

The highlighted row is for SD291, which is the UroLift implant. The supply list for 52442 also includes one of these at \$875 for each time 52442 is billed.

The Proposed Rule payment for 52442 is \$796, which is far below the cost of the implant alone. As noted above, total payment for a typical 4-implant procedure is proposed to be \$3,543. The total cost of just the four implants is \$3,500. Thus, the remaining \$43 (\$3,543 payment minus \$3,500 cost of four implants) would be inadequate to cover other supplies necessary for completing the service (\$220.05), 150.5 minutes RN labor, equipment costs, malpractice costs, indirect costs, plus the physician's 7.03 RVUs of work.

Unviability Not Exclusive to PUL in Physician Office Setting Under the 2022 Proposed PFS Rule

Medical Technology Partners¹ (MTP) also reviewed the proposed NF fee schedule, comparing it to the practice expense direct cost input table published with the Proposed Rule. The proposed direct clinical labor changes place a significant number of procedures "under water." The table in APPENDIX 1 lists services MTP identified as having NF PE costs \$45 or more than their proposed payment, making these services also at high risk of no longer being available in the office setting.

An example of this is 55874, *Transperineal placement of biodegradable material, peri-prostate, single or multiple injection(s), including image guidance, when performed*. The Direct Practice Expense Supply Inputs for this prostate cancer treatment include a single supply item at \$2,965, and a proposed 2022 NF payment of \$2,566. Considering the supply alone, the physician would incur a \$399 loss before accounting for the remaining supplies including 62 minutes of RN labor; and incurring equipment, malpractice, and indirect costs. The physician would also incur 3.03 RVUs of work.

Physicians will simply not offer a service with this level of negative economics.

Source of the Change in NF Device-Intensive Procedure Payment

A significant component of the 2022 PFS Proposed Rule, is the proposal by CMS to update 50 labor rates that are used as part of the Practice Expense calculation of the overall RVU calculation. Because CMS has not adjusted these labor rates since 2002, there is substantial inflation in these labor rates as proposed. CMS proposes to maintain the total practice expense portion of the PFS given no new funding has been provided to compensate for this previously unaccounted for labor rate inflation. Therefore, the increase in labor rates would

¹ Medical Technology Partners (MTP), Rockville, Maryland

come from equipment and supplies. The Medical Technology Partners' analysis shows the reduction in these categories creates a 24% decrease. Procedures like prostatic urethral lift and transperineal placement of biodegradable material have less than a 5% clinical labor component in the NF setting, making the payment reductions substantial and unfairly disproportionate compared to procedures with a high clinical labor component.

According to a model created by Medical Technology Partners in conjunction with MCDA Intel, an overwhelming majority of the significant payment reductions are to device-intensive procedures as a result of the clinical labor rate change. The conversion factor adjustment and other less notable changes account for the rest.

CMS Should Encourage, Not Discourage, Office-Based Procedures

It is imperative CMS does not create incentives that will necessitate a shift of office procedures to more costly and less accessible facility settings. Procedures such as PUL are performed safely and effectively in the office setting for many BPH patients. For example, a clinical study on 1,400+ BPH patients treated in various sites of service was recently published in the *Journal of Endourology*.² The study concluded that *"When completed in a clinic office, PUL resulted in less side effects and reduced catheter placement compared to other sites of service."* An upcoming presentation of this study at the Western Section of the American Urological Association is titled *"Real-World Study of the Prostatic Urethral Lift (PUL) Reveals Office-Based procedures May Lead to a Better Patient Experience."*

Office-based procedures are preferred by patients and have notable advantages for patients, physicians, and Medicare, including:

- Lower costs
- Lower coinsurance for patients
- Enhanced safety
- Treatment accessibility, particularly for those with comorbidities that make hospitalization risky during and beyond the Covid 19 pandemic

Recommendation

Teleflex respectfully implores CMS to postpone implementation of the proposed labor cost update until CMS can assess the irreversible impact of numerous negative unintended consequences that threaten goals of improving health equity and patient access for Medicare beneficiaries. We encourage CMS to engage with stakeholders to effectively explore alternative methodologies and implementation proposals that will not adversely and permanently affect patient access to PUL, and numerous other office-based procedures, and will not inappropriately alter physician decision making specific to place of service.

We strongly oppose CMS' suggested phase-in of these proposed clinical labor rate updates. No level of phasing in will resolve the problem. The net impact of the clinical labor rate change is too dramatic to the overall system. It will immediately upon implementation force many

² Eure, G. et al (2019). Real-World Evidence of Prostatic Urethral Lift Confirms Pivotal Clinical Study Results: 2-Year Outcomes of a Retrospective Multicenter Study. *Journal of Endourology*, 33(7), 576–584

procedures to be performed in more costly facility settings, putting a vulnerable Medicare population at an increased risk during and beyond the Covid 19 pandemic and result in the unintended consequence of delaying or reducing access to care for necessary treatment.

Implementing the 20-year clinical labor rate inflation update as proposed will result in a tenuous balance between viability and insolvency for physicians under the PFS. CMS' proposal causes an unparalleled negative payment rate impact to services that are intensive in device, supply and equipment costs. Implementation would be destabilizing for the numerous procedures affected forcing physicians to no longer offer PUL, and hundreds of other procedures in the office setting to Medicare beneficiaries. The resulting decrease in payment rates for CPT codes 52441 and 52442, purely due to updating the clinical labor rates, will make the PUL procedure prohibitive in the office site of service for Medicare beneficiaries therefore limiting patient access to medically necessary services.

An additional unintended consequence worth noting should the Proposed Rule be implemented or even phased-in, would be the consequential risk of dis-incentivizing current and future investment in the development of innovative medical technologies. Innovative medical technologies are directly responsible for providing the necessary efficiencies that allow numerous device intensive treatments to be performed safely and effectively in an office setting. Because the costs of devices, supplies and equipment are bundled into the non-facility PE RVU, implementing the Proposed Rule puts at immediate risk medical technology innovation which enables use in lower-cost sites of service, like the office.

Thank you for your time and consideration of our comments. If you have any questions on our comments, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Liam Kelly", with a large, stylized loop at the end.

Liam Kelly
Chairman, President and CEO
Teleflex Incorporated

APPENDIX 1

Non-Facility PE Costs At Least \$45 More Than Proposed Payment

Code	Long Description	2021C NF Payment ³	2022P NF Payment ⁴	2022P NF Direct PE Costs ⁵	Shortfall ⁶
37231	Revascularization, endovascular, open or percutaneous, tibial, peroneal artery, unilateral, initial vessel; with transluminal stent placement(s) and atherectomy, includes angioplasty within the same vessel, when performed	\$14,090.53	\$10,985.59	\$13,739.79	(\$2,754.20)
37227	Revascularization, endovascular, open or percutaneous, femoral, popliteal artery(s), unilateral; with transluminal stent placement(s) and atherectomy, includes angioplasty within the same vessel, when performed	\$14,044.47	\$10,949.32	\$13,575.26	(\$2,625.94)
37230	Revascularization, endovascular, open or percutaneous, tibial, peroneal artery, unilateral, initial vessel; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed	\$10,485.38	\$8,128.53	\$10,604.02	(\$2,475.49)
37226	Revascularization, endovascular, open or percutaneous, femoral, popliteal artery(s), unilateral; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed	\$9,968.96	\$7,771.86	\$9,916.36	(\$2,144.50)
37225	Revascularization, endovascular, open or percutaneous, femoral, popliteal artery(s), unilateral; with atherectomy, includes angioplasty within the same vessel, when performed	\$10,957.13	\$8,542.63	\$10,406.06	(\$1,863.43)
37229	Revascularization, endovascular, open or percutaneous, tibial, peroneal artery, unilateral, initial vessel; with atherectomy, includes angioplasty within the same vessel, when performed	\$11,021.33	\$8,592.67	\$10,344.66	(\$1,751.99)
37242	Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance necessary to complete the intervention; arterial, other than hemorrhage or tumor (eg, congenital or acquired arterial malformations, arteriovenous malformations, arteriovenous fistulas, aneurysms, pseudoaneurysms)	\$8,069.73	\$6,497.99	\$8,014.57	(\$1,516.59)
37243	Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance necessary to complete the intervention; for tumors, organ ischemia, or infarction	\$9,933.37	\$7,844.07	\$9,160.15	(\$1,316.09)
33285	Insertion, subcutaneous cardiac rhythm monitor, including programming	\$5,200.12	\$4,054.02	\$5,093.60	(\$1,039.58)
37234	Revascularization, endovascular, open or percutaneous, tibial/peroneal artery, unilateral, each additional vessel; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed (List separately in addition to code for primary procedure)	\$4,131.69	\$3,270.49	\$4,220.80	(\$950.32)
37183	Revision of transvenous intrahepatic portosystemic shunt(s) (TIPS) (includes venous access, hepatic and portal vein catheterization, portography with hemodynamic evaluation, intrahepatic tract recanalization/dilatation, stent placement and all associated imaging guidance and documentation)	\$6,592.00	\$5,322.52	\$6,213.38	(\$890.86)

³ Based on 2021 RVU Update Rev C and conversion factor 34.8931

⁴ Based on 2022 PFS Proposed Rule Addendum B RVUs and proposed conversion factor 33.5848

⁵ Based on 2022 PFS Proposed Rule Direct PE Inputs table

⁶ Based on 2022 PFS Proposed Rule Direct PE Inputs table and Addendum B RVUs with proposed conversion factor 33.5848

Code	Long Description	2021C NF Payment ³	2022P NF Payment ⁴	2022P NF Direct PE Costs ⁵	Shortfall ⁶
37228	Revascularization, endovascular, open or percutaneous, tibial, peroneal artery, unilateral, initial vessel; with transluminal angioplasty	\$4,953.08	\$3,828.33	\$4,701.58	(\$873.25)
47383	Ablation, 1 or more liver tumor(s), percutaneous, cryoablation	\$6,881.62	\$5,415.21	\$6,268.18	(\$852.96)
37235	Revascularization, endovascular, open or percutaneous, tibial/peroneal artery, unilateral, each additional vessel; with transluminal stent placement(s) and atherectomy, includes angioplasty within the same vessel, when performed (List separately in addition to code for primary procedure)	\$4,390.60	\$3,522.04	\$4,337.42	(\$815.38)
37238	Transcatheter placement of an intravascular stent(s), open or percutaneous, including radiological supervision and interpretation and including angioplasty within the same vessel, when performed; initial vein	\$3,977.12	\$3,128.76	\$3,917.12	(\$788.36)
37244	Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance necessary to complete the intervention; for arterial or venous hemorrhage or lymphatic extravasation	\$7,444.44	\$6,015.37	\$6,757.80	(\$742.43)
20983	Ablation therapy for reduction or eradication of 1 or more bone tumors (eg, metastasis) including adjacent soft tissue when involved by tumor extension, percutaneous, including imaging guidance when performed; cryoablation	\$5,916.82	\$4,643.43	\$5,325.23	(\$681.79)
32994	Ablation therapy for reduction or eradication of 1 or more pulmonary tumor(s) including pleura or chest wall when involved by tumor extension, percutaneous, including imaging guidance when performed, unilateral; cryoablation	\$5,657.22	\$4,500.70	\$5,095.99	(\$595.29)
55874	Transperineal placement of biodegradable material, peri-prostatic, single or multiple injection(s), including image guidance, when performed	\$3,260.76	\$2,565.54	\$3,145.95	(\$580.40)
47538	Placement of stent(s) into a bile duct, percutaneous, including diagnostic cholangiography, imaging guidance (eg, fluoroscopy and/or ultrasound), balloon dilation, catheter exchange(s) and catheter removal(s) when performed, and all associated radiological supervision and interpretation; existing access	\$4,397.58	\$3,458.23	\$4,037.07	(\$578.85)
37241	Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance necessary to complete the intervention; venous, other than hemorrhage (eg, congenital or acquired venous malformations, venous and capillary hemangiomas, varicose veins, varicoceles)	\$5,159.29	\$4,268.29	\$4,819.10	(\$550.81)
93229	External mobile cardiovascular telemetry with electrocardiographic recording, concurrent computerized real time data analysis and greater than 24 hours of accessible ECG data storage (retrievable with query) with ECG triggered and patient selected events transmitted to a remote attended surveillance center for up to 30 days; technical support for connection and patient instructions for use, attended surveillance, analysis and transmission of daily and emergent data reports as prescribed by a physician or other qualified health care professional	\$717.05	\$772.79	\$1,316.84	(\$544.05)
37224	Revascularization, endovascular, open or percutaneous, femoral, popliteal artery(s), unilateral; with transluminal angioplasty	\$3,458.60	\$2,708.28	\$3,236.25	(\$527.98)
37221	Revascularization, endovascular, open or percutaneous, iliac artery, unilateral, initial vessel; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed	\$3,792.88	\$2,957.14	\$3,402.00	(\$444.86)

Code	Long Description	2021C NF Payment ³	2022P NF Payment ⁴	2022P NF Direct PE Costs ⁵	Shortfall ⁶
37220	Revascularization, endovascular, open or percutaneous, iliac artery, unilateral, initial vessel; with transluminal angioplasty	\$2,925.09	\$2,318.36	\$2,752.62	(\$434.26)
47540	Placement of stent(s) into a bile duct, percutaneous, including diagnostic cholangiography, imaging guidance (eg, fluoroscopy and/or ultrasound), balloon dilation, catheter exchange(s) and catheter removal(s) when performed, and all associated radiological supervision and interpretation; new access, with placement of separate biliary drainage catheter (eg, external or internal-external)	\$4,932.49	\$3,913.30	\$4,344.80	(\$431.50)
47539	Placement of stent(s) into a bile duct, percutaneous, including diagnostic cholangiography, imaging guidance (eg, fluoroscopy and/or ultrasound), balloon dilation, catheter exchange(s) and catheter removal(s) when performed, and all associated radiological supervision and interpretation; new access, without placement of separate biliary drainage catheter	\$4,824.32	\$3,863.26	\$4,274.31	(\$411.05)
37236	Transcatheter placement of an intravascular stent(s) (except lower extremity artery(s) for occlusive disease, cervical carotid, extracranial vertebral or intrathoracic carotid, intracranial, or coronary), open or percutaneous, including radiological supervision and interpretation and including all angioplasty within the same vessel, when performed; initial artery	\$3,317.64	\$2,586.70	\$2,996.34	(\$409.64)
36903	Introduction of needle(s) and/or catheter(s), dialysis circuit, with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, radiological supervision and interpretation and image documentation and report; with transcatheter placement of intravascular stent(s), peripheral dialysis segment, including all imaging and radiological supervision and interpretation necessary to perform the stenting, and all angioplasty within the peripheral dialysis segment	\$5,151.97	\$4,016.74	\$4,422.75	(\$406.00)
37239	Transcatheter placement of an intravascular stent(s), open or percutaneous, including radiological supervision and interpretation and including angioplasty within the same vessel, when performed; each additional vein (List separately in addition to code for primary procedure)	\$1,990.30	\$1,539.53	\$1,932.16	(\$392.63)
55873	Cryosurgical ablation of the prostate (includes ultrasonic guidance and monitoring)	\$6,514.19	\$5,192.21	\$5,576.26	(\$384.05)
21127	Augmentation, mandibular body or angle; with bone graft, onlay or interpositional (includes obtaining autograft)	\$4,314.88	\$3,727.58	\$4,096.56	(\$368.99)
36906	Percutaneous transluminal mechanical thrombectomy and/or infusion for thrombolysis, dialysis circuit, any method, including all imaging and radiological supervision and interpretation, diagnostic angiography, fluoroscopic guidance, catheter placement(s), and intraprocedural pharmacological thrombolytic injection(s); with transcatheter placement of intravascular stent(s), peripheral dialysis segment, including all imaging and radiological supervision and interpretation necessary to perform the stenting, and all angioplasty within the peripheral dialysis circuit	\$6,455.57	\$5,032.68	\$5,393.84	(\$361.16)
50593	Ablation, renal tumor(s), unilateral, percutaneous, cryotherapy	\$4,413.63	\$3,480.39	\$3,833.09	(\$352.69)

Code	Long Description	2021C NF Payment ³	2022P NF Payment ⁴	2022P NF Direct PE Costs ⁵	Shortfall ⁶
58563	Hysteroscopy, surgical; with endometrial ablation (eg, endometrial resection, electrosurgical ablation, thermoablation)	\$2,258.28	\$1,906.61	\$2,253.78	(\$347.17)
21215	Graft, bone; mandible (includes obtaining graft)	\$4,390.95	\$3,794.75	\$4,126.02	(\$331.27)
50705	Ureteral embolization or occlusion, including imaging guidance (eg, ultrasound and/or fluoroscopy) and all associated radiological supervision and interpretation (List separately in addition to code for primary procedure)	\$2,024.85	\$1,721.56	\$2,052.74	(\$331.19)
77372	Radiation treatment delivery, stereotactic radiosurgery (SRS), complete course of treatment of cranial lesion(s) consisting of 1 session; linear accelerator based	\$1,073.66	\$868.17	\$1,151.27	(\$283.10)
77373	Stereotactic body radiation therapy, treatment delivery, per fraction to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions	\$1,172.06	\$907.13	\$1,188.42	(\$281.29)
37191	Insertion of intravascular vena cava filter, endovascular approach including vascular access, vessel selection, and radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance (ultrasound and fluoroscopy), when performed	\$2,409.02	\$1,866.31	\$2,136.53	(\$270.22)
53860	Transurethral radiofrequency micro-remodeling of the female bladder neck and proximal urethra for stress urinary incontinence	\$2,480.55	\$2,149.43	\$2,407.08	(\$257.65)
50592	Ablation, 1 or more renal tumor(s), percutaneous, unilateral, radiofrequency	\$3,286.93	\$2,590.73	\$2,842.84	(\$252.10)
36482	Endovenous ablation therapy of incompetent vein, extremity, by transcatheter delivery of a chemical adhesive (eg, cyanoacrylate) remote from the access site, inclusive of all imaging guidance and monitoring, percutaneous; first vein treated	\$1,941.10	\$1,517.36	\$1,751.10	(\$233.74)
37192	Repositioning of intravascular vena cava filter, endovascular approach including vascular access, vessel selection, and radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance (ultrasound and fluoroscopy), when performed	\$1,410.38	\$1,211.07	\$1,403.37	(\$192.30)
32998	Ablation therapy for reduction or eradication of 1 or more pulmonary tumor(s) including pleura or chest wall when involved by tumor extension, percutaneous, including imaging guidance when performed, unilateral; radiofrequency	\$3,580.73	\$2,882.25	\$3,070.45	(\$188.20)
36909	Dialysis circuit permanent vascular embolization or occlusion (including main circuit or any accessory veins), endovascular, including all imaging and radiological supervision and interpretation necessary to complete the intervention (List separately in addition to code for primary procedure)	\$2,155.35	\$1,757.49	\$1,942.62	(\$185.13)
G6016	Compensator-based beam modulation treatment delivery of inverse planned treatment using three or more high resolution (milled or cast) compensator, convergent beam modulated fields, per treatment session	\$384.52	\$334.50	\$518.28	(\$183.78)
77615	Hyperthermia generated by interstitial probe(s); more than 5 interstitial applicators	\$1,133.33	\$991.42	\$1,166.56	(\$175.14)
77615	Hyperthermia generated by interstitial probe(s); more than 5 interstitial applicators	\$1,133.33	\$991.42	\$1,166.56	(\$175.14)
37252	Intravascular ultrasound (noncoronary vessel) during diagnostic evaluation and/or therapeutic intervention, including radiological supervision and interpretation; initial noncoronary vessel (List separately in addition to code for primary procedure)	\$1,151.47	\$897.72	\$1,072.03	(\$174.31)
88377	Morphometric analysis, in situ hybridization (quantitative or semi-quantitative), manual, per specimen; each multiplex probe stain procedure	\$424.65	\$359.36	\$520.98	(\$161.62)

Code	Long Description	2021C NF Payment ³	2022P NF Payment ⁴	2022P NF Direct PE Costs ⁵	Shortfall ⁶
88377	Morphometric analysis, in situ hybridization (quantitative or semi-quantitative), manual, per specimen; each multiplex probe stain procedure	\$424.65	\$359.36	\$520.98	(\$161.62)
36254	Superselective catheter placement (one or more second order or higher renal artery branches) renal artery and any accessory renal artery(s) for renal angiography, including arterial puncture, catheterization, fluoroscopy, contrast injection(s), image postprocessing, permanent recording of images, and radiological supervision and interpretation, including pressure gradient measurements when performed, and flush aortogram when performed; bilateral	\$2,235.95	\$1,841.45	\$1,993.85	(\$152.40)
49185	Sclerotherapy of a fluid collection (eg, lymphocele, cyst, or seroma), percutaneous, including contrast injection(s), sclerosant injection(s), diagnostic study, imaging guidance (eg, ultrasound, fluoroscopy) and radiological supervision and interpretation when performed	\$1,336.75	\$1,165.73	\$1,306.39	(\$140.66)
88120	Cytopathology, in situ hybridization (eg, FISH), urinary tract specimen with morphometric analysis, 3-5 molecular probes, each specimen; manual	\$632.96	\$543.40	\$677.58	(\$134.18)
88120	Cytopathology, in situ hybridization (eg, FISH), urinary tract specimen with morphometric analysis, 3-5 molecular probes, each specimen; manual	\$632.96	\$543.40	\$677.58	(\$134.18)
36465	Injection of non-compounded foam sclerosant with ultrasound compression maneuvers to guide dispersion of the injectate, inclusive of all imaging guidance and monitoring; single incompetent extremity truncal vein (eg, great saphenous vein, accessory saphenous vein)	\$1,545.42	\$1,204.69	\$1,332.27	(\$127.59)
58558	Hysteroscopy, surgical; with sampling (biopsy) of endometrium and/or polypectomy, with or without D & C	\$1,495.87	\$1,210.40	\$1,330.07	(\$119.68)
88121	Cytopathology, in situ hybridization (eg, FISH), urinary tract specimen with morphometric analysis, 3-5 molecular probes, each specimen; using computer-assisted technology	\$456.75	\$378.84	\$496.16	(\$117.33)
88121	Cytopathology, in situ hybridization (eg, FISH), urinary tract specimen with morphometric analysis, 3-5 molecular probes, each specimen; using computer-assisted technology	\$456.75	\$378.84	\$496.16	(\$117.33)
88374	Morphometric analysis, in situ hybridization (quantitative or semi-quantitative), using computer-assisted technology, per specimen; each multiplex probe stain procedure	\$352.42	\$285.14	\$402.42	(\$117.29)
88374	Morphometric analysis, in situ hybridization (quantitative or semi-quantitative), using computer-assisted technology, per specimen; each multiplex probe stain procedure	\$352.42	\$285.14	\$402.42	(\$117.29)
36221	Non-selective catheter placement, thoracic aorta, with angiography of the extracranial carotid, vertebral, and/or intracranial vessels, unilateral or bilateral, and all associated radiological supervision and interpretation, includes angiography of the cervicocerebral arch, when performed	\$1,109.95	\$925.93	\$1,042.36	(\$116.42)
77610	Hyperthermia generated by interstitial probe(s); 5 or fewer interstitial applicators	\$726.47	\$644.83	\$760.48	(\$115.66)
77610	Hyperthermia generated by interstitial probe(s); 5 or fewer interstitial applicators	\$726.47	\$644.83	\$760.48	(\$115.66)
G6015	Intensity modulated treatment delivery, single or multiple fields/arcs, via narrow spatially and temporally modulated beams, binary, dynamic MLC, per treatment session	\$385.57	\$336.52	\$446.18	(\$109.66)
93451	Right heart catheterization including measurement(s) of oxygen saturation and cardiac output, when performed	\$934.09	\$803.35	\$904.71	(\$101.36)

Code	Long Description	2021C NF Payment ³	2022P NF Payment ⁴	2022P NF Direct PE Costs ⁵	Shortfall ⁶
93451	Right heart catheterization including measurement(s) of oxygen saturation and cardiac output, when performed	\$934.09	\$803.35	\$904.71	(\$101.36)
37186	Secondary percutaneous transluminal thrombectomy (e.g., nonprimary mechanical, snare basket, suction technique), noncoronary, non-intracranial, arterial or arterial bypass graft, including fluoroscopic guidance and intraprocedural pharmacological thrombolytic injections, provided in conjunction with another percutaneous intervention other than primary mechanical thrombectomy (List separately in addition to code for primary procedure)	\$1,368.86	\$1,097.89	\$1,197.37	(\$99.48)
76145	Medical physics dose evaluation for radiation exposure that exceeds institutional review threshold, including report	\$848.25	\$728.79	\$826.09	(\$97.30)
36473	Endovenous ablation therapy of incompetent vein, extremity, inclusive of all imaging guidance and monitoring, percutaneous, mechanochemical; first vein treated	\$1,441.43	\$1,119.72	\$1,216.84	(\$97.12)
37246	Transluminal balloon angioplasty (except lower extremity artery(ies) for occlusive disease, intracranial, coronary, pulmonary, or dialysis circuit), open or percutaneous, including all imaging and radiological supervision and interpretation necessary to perform the angioplasty within the same artery; initial artery	\$2,077.88	\$1,705.10	\$1,800.63	(\$95.53)
37237	Transcatheter placement of an intravascular stent(s) (except lower extremity artery(s) for occlusive disease, cervical carotid, extracranial vertebral or intrathoracic carotid, intracranial, or coronary), open or percutaneous, including radiological supervision and interpretation and including all angioplasty within the same vessel, when performed; each additional artery (List separately in addition to code for primary procedure)	\$1,691.27	\$1,318.54	\$1,413.58	(\$95.04)
36251	Selective catheter placement (first-order), main renal artery and any accessory renal artery(s) for renal angiography, including arterial puncture and catheter placement(s), fluoroscopy, contrast injection(s), image postprocessing, permanent recording of images, and radiological supervision and interpretation, including pressure gradient measurements when performed, and flush aortogram when performed; unilateral	\$1,452.25	\$1,202.00	\$1,296.07	(\$94.07)
37188	Percutaneous transluminal mechanical thrombectomy, vein(s), including intraprocedural pharmacological thrombolytic injections and fluoroscopic guidance, repeat treatment on subsequent day during course of thrombolytic therapy	\$1,692.66	\$1,355.15	\$1,448.81	(\$93.67)
52442	Cystourethroscopy, with insertion of permanent adjustable transprostatic implant; each additional permanent adjustable transprostatic implant (List separately in addition to code for primary procedure)	\$1,020.97	\$795.96	\$888.77	(\$92.81)
88381	Microdissection (ie, sample preparation of microscopically identified target); manual	\$204.82	\$198.15	\$290.61	(\$92.46)
88381	Microdissection (ie, sample preparation of microscopically identified target); manual	\$204.82	\$198.15	\$290.61	(\$92.46)
58356	Endometrial cryoablation with ultrasonic guidance, including endometrial curettage, when performed	\$1,911.44	\$1,540.53	\$1,631.39	(\$90.85)
77423	High energy neutron radiation treatment delivery, 1 or more isocenter(s) with coplanar or non-coplanar geometry with blocking and/or wedge, and/or compensator(s)	\$0.00	\$0.00	\$83.30	(\$83.30)

Code	Long Description	2021C NF Payment ³	2022P NF Payment ⁴	2022P NF Direct PE Costs ⁵	Shortfall ⁶
G2083	Office or other outpatient visit for the evaluation and management of an established patient that requires the supervision of a physician or other qualified health care professional and provision of greater than 56 mg esketamine nasal self administration, includes 2 hours post administration observation	\$1,237.66	\$960.19	\$1,042.52	(\$82.33)
36253	Superselective catheter placement (one or more second order or higher renal artery branches) renal artery and any accessory renal artery(s) for renal angiography, including arterial puncture, catheterization, fluoroscopy, contrast injection(s), image postprocessing, permanent recording of images, and radiological supervision and interpretation, including pressure gradient measurements when performed, and flush aortogram when performed; unilateral	\$2,277.12	\$1,866.98	\$1,947.21	(\$80.23)
G6014	Radiation treatment delivery, three or more separate treatment areas, custom blocking, tangential ports, wedges, rotational beam, compensators, electron beam; 20 mev or greater	\$264.84	\$213.26	\$289.95	(\$76.68)
G6012	Radiation treatment delivery, three or more separate treatment areas, custom blocking, tangential ports, wedges, rotational beam, compensators, electron beam; 6-10 mev	\$264.84	\$213.94	\$289.95	(\$76.01)
G6011	Radiation treatment delivery, three or more separate treatment areas, custom blocking, tangential ports, wedges, rotational beam, compensators, electron beam; up to 5 mev	\$266.23	\$214.27	\$289.95	(\$75.67)
G6013	Radiation treatment delivery, three or more separate treatment areas, custom blocking, tangential ports, wedges, rotational beam, compensators, electron beam; 11-19 mev	\$265.54	\$214.27	\$289.95	(\$75.67)
36247	Selective catheter placement, arterial system; initial third order or more selective abdominal, pelvic, or lower extremity artery branch, within a vascular family	\$1,589.38	\$1,323.24	\$1,398.59	(\$75.35)
78650	Cerebrospinal fluid leakage detection and localization	\$285.08	\$249.54	\$319.66	(\$70.12)
78650	Cerebrospinal fluid leakage detection and localization	\$285.08	\$249.54	\$319.66	(\$70.12)
21125	Augmentation, mandibular body or angle; prosthetic material	\$2,909.39	\$2,454.38	\$2,524.26	(\$69.88)
G0106	Colorectal cancer screening; alternative to G0104, screening sigmoidoscopy, barium enema	\$234.83	\$214.94	\$284.02	(\$69.08)
G0106	Colorectal cancer screening; alternative to G0104, screening sigmoidoscopy, barium enema	\$234.83	\$214.94	\$284.02	(\$69.08)
G0120	Colorectal cancer screening; alternative to G0105, screening colonoscopy, barium enema	\$234.83	\$214.94	\$284.02	(\$69.08)
G0120	Colorectal cancer screening; alternative to G0105, screening colonoscopy, barium enema	\$234.83	\$214.94	\$284.02	(\$69.08)
37223	Revascularization, endovascular, open or percutaneous, iliac artery, each additional ipsilateral iliac vessel; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed (List separately in addition to code for primary procedure)	\$1,717.79	\$1,339.36	\$1,404.26	(\$64.90)
78832	Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); tomographic (SPECT) with concurrently acquired computed tomography (CT) transmission scan for anatomical review, localization and determination/detection of pathology, minimum 2 areas (eg, pelvis and knees, abdomen and pelvis), single day imaging, or single area imaging over 2 or more days	\$948.74	\$806.37	\$868.28	(\$61.91)

Code	Long Description	2021C NF Payment ³	2022P NF Payment ⁴	2022P NF Direct PE Costs ⁵	Shortfall ⁶
78832	Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); tomographic (SPECT) with concurrently acquired computed tomography (CT) transmission scan for anatomical review, localization and determination/detection of pathology, minimum 2 areas (eg, pelvis and knees, abdomen and pelvis), single day imaging, or single area imaging over 2 or more days	\$948.74	\$806.37	\$868.28	(\$61.91)
93271	External patient and, when performed, auto activated electrocardiographic rhythm derived event recording with symptom-related memory loop with remote download capability up to 30 days, 24-hour attended monitoring; transmission and analysis	\$167.49	\$142.06	\$203.52	(\$61.46)
78016	Thyroid carcinoma metastases imaging; with additional studies (eg, urinary recovery)	\$290.66	\$254.91	\$315.42	(\$60.51)
78016	Thyroid carcinoma metastases imaging; with additional studies (eg, urinary recovery)	\$290.66	\$254.91	\$315.42	(\$60.51)
37197	Transcatheter retrieval, percutaneous, of intravascular foreign body (eg, fractured venous or arterial catheter), includes radiological supervision and interpretation, and imaging guidance (ultrasound or fluoroscopy), when performed	\$1,710.81	\$1,455.90	\$1,516.15	(\$60.25)
31627	Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with computer-assisted, image-guided navigation (List separately in addition to code for primary procedure[s])	\$1,308.14	\$1,019.63	\$1,079.17	(\$59.53)
36245	Selective catheter placement, arterial system; each first order abdominal, pelvic, or lower extremity artery branch, within a vascular family	\$1,400.26	\$1,146.92	\$1,205.52	(\$58.60)
G6008	Radiation treatment delivery, two separate treatment areas, three or more ports on a single treatment area, use of multiple blocks: 6-10 mev	\$200.29	\$161.88	\$220.19	(\$58.31)
G6009	Radiation treatment delivery, two separate treatment areas, three or more ports on a single treatment area, use of multiple blocks: 11-19 mev	\$198.89	\$161.54	\$218.57	(\$57.03)
G6010	Radiation treatment delivery, two separate treatment areas, three or more ports on a single treatment area, use of multiple blocks: 20 mev or greater	\$198.54	\$161.88	\$218.57	(\$56.69)
78804	Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); planar, whole body, requiring 2 or more days imaging	\$677.62	\$576.65	\$631.88	(\$55.22)
78804	Radiopharmaceutical localization of tumor, inflammatory process or distribution of radiopharmaceutical agent(s) (includes vascular flow and blood pool imaging, when performed); planar, whole body, requiring 2 or more days imaging	\$677.62	\$576.65	\$631.88	(\$55.22)
49423	Exchange of previously placed abscess or cyst drainage catheter under radiological guidance (separate procedure)	\$649.71	\$545.75	\$599.15	(\$53.40)
95807	Sleep study, simultaneous recording of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation, attended by a technologist	\$406.85	\$391.93	\$440.31	(\$48.37)
95807	Sleep study, simultaneous recording of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation, attended by a technologist	\$406.85	\$391.93	\$440.31	(\$48.37)
31634	Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with balloon occlusion, with assessment of air leak, with administration of occlusive substance (eg, fibrin glue), if performed	\$1,788.97	\$1,403.51	\$1,451.42	(\$47.91)

Code	Long Description	2021C NF Payment ³	2022P NF Payment ⁴	2022P NF Direct PE Costs ⁵	Shortfall ⁶
36014	Selective catheter placement, left or right pulmonary artery	\$882.80	\$734.50	\$780.47	(\$45.97)
58353	Endometrial ablation, thermal, without hysteroscopic guidance	\$1,056.91	\$853.73	\$898.90	(\$45.17)