PHILIPS

Submitted Electronically

September 10, 2018

Dear Administrator Verma:

On behalf of Philips Healthcare (Philips), I am pleased to have the opportunity to provide these comments on the 2019 Physician Fee Schedule (PFS) Proposed Rule (the PFS Proposed Rule"). Philips provides solutions that span the health continuum, including imaging, patient monitoring, and cardiac care systems; medical alert systems; sleep management and respiratory solutions; healthcare informatics solutions and services; and a complete range of comprehensive telehealth programs.

These comments address the following provisions of the PFS Proposed Rule:

- Expansion of Medicare payment for remote provision of various services.
- Revisions of the supply and equipment inputs based on a report prepared by StrategyGen with respect to
    - Ultrasound;
    - IVUS and other Vascular Procedures
    - Radiation Oncology
- Valuation of x-ray services;
- Removal of sleep apnea quality measures
- Adoption of a number of new imaging codes
- Modification of Indirect Practice Cost Index (IPCI) in conjunction with revision of E&M codes.
- Response to CMS' Request for Information (RFI) on Interoperability

Preliminarily, we support the comments filed by the American College of Radiology (ACR) with regard to the proposed RVUs for individual imaging procedures, and support the comments of the AMA Relative Value Update Committee (RUC) with respect to the valuation of individual procedures and we especially urge CMS to adopt the recommendations of the RUC with respect to :

- The standardization of clinical labor tasks;
- The valuation of equipment and supplies used in the conduct of interventional radiology procedures;
- The request for greater transparency with respect to services that are publicly nominated for revaluation as potentially misvalued codes;
- The need to fully take into account the cost savings achieved through the bundling of image guidance codes and the valuation of CPT codes that involve imaging guidance;
- The RUC proposal to maintain current valuation of X-ray codes pending submission of RUC survey data; and
- The RUC comments on various new and existing imaging and imaging guidance-related CPT codes.

I. Expansion of Medicare Payment for Remote Provision of Services

Philips strongly supports CMS' expansion of Medicare payment for services provided remotely. While Philips provides health care products and services that span the health continuum[1], we believe that coordinated programs facilitating the remote provision of health care services are among the most cost-effective solutions to systematically manage patient populations with ongoing needs, particularly those with medically complex and/or chronic conditions. Philips' remote access programs are designed to enable providers to coordinate care across the continuum for patients ranging from those who require chronic management to patients with complex, high-risk conditions requiring acute intervention. These programs include the Remote Intensive Care Program (eICU®), a comprehensive technology and clinical reengineering program that enables health care professionals from a centralized telehealth center to provide around-the-clock care for critically ill patients; eAcute Program, which is modeled after the eICU, and monitors high-risk hospitalized patients on medical-surgical floors to prevent avoidable complications, and eConsultant program, which provides remote management services to Skilled Nursing Facilities (SNFs) and emergency department (ED) consults for telestroke, telepsych and trauma triage; and the Intensive Ambulatory Care (eIAC) Program, enables our provider partners to manage high-risk patients with multiple chronic conditions in the home.

The PFS Proposed Rule includes numerous proposals relating directly or indirectly to the remote provision of health care services. These proposals include modification of the CPT codes and allowances for remote monitoring of physiological data; remote provision of chronic care management; and remote provision of physician services through communications technology. Philips strongly supports the Proposed Rule's provisions in each of these areas. Specifically:

- Last year, CMS finalized separate payment for CPT code 99091 to facilitate billing for remote monitoring of physiologic data. In the Proposed Rule, CMS is proposing to substitute three new codes (and corresponding allowances) to report remote physiologic monitoring, for initial set up and patient education; remote monitoring; and treatment management services related to remote monitoring.[2]

    - *Philips Recommendation: Philips supports finalization of the PFS proposal to substitute the new CPT codes and related allowances for CPT code 99091.*

- The PFS Proposed Rule includes a number of proposals with respect to Chronic Care Management Services, including a proposal to double the Work Relative Values for chronic care management (to reflect 30 minutes rather than 15 minutes of physician or other practitioner time and to adopt a new CPT code for this service.

    - *Philips Recommendation: Philips supports the adoption of a new code for chronic care management and the increased valuation of the work involved in this service, which we*

[1] Our service lines include imaging, patient monitoring, and cardiac care systems; medical alert systems; sleep management and respiratory solutions; and healthcare informatics solutions and services.

[2] CPT code 990X0 (Remote monitoring of physiologic parameter(s) (eg, weight, blood pressure, pulse oximetry, respiratory flow rate), initial; set-up and patient education on use of equipment); CPT Code 990X1 (Remote monitoring of physiologic parameter(s) (e.g. weight, blood pressure, pulse oximetry, respiratory flow rate), initial; device(s) supply with daily recording(s) or programmed alert(s) transmission, each 30 days); and CPT code 994X9 (Remote physiologic monitoring treatment management services, 20 minutes or more of clinical staff/physician/other qualified healthcare professional time in a calendar month requiring interactive communication with the patient/caregiver during the month).

believe to be more reflective of the work expended by physicians and other practitioners to provide remote management for Medicare patients with chronic conditions.

- The PFS Proposed Rule would also provide Medicare payment for two new remote communications-based technology services: Virtual Check In and Remote Evaluation of Pre-Recorded Data. The PFS Proposed Rule would also authorize Medicare payment for a number of new codes for interprofessional telephone/internet assessment and management services to faciliate interprofessional consultations.

    - *Philips recommendation: Philips believes that the adoption of Medicare payment for these services will result in the provision of professional services to Medicare patients in a manner that is significantly more convenient for them and substantially more efficient for providers. For this reason, we support all of these proposed modifications, as set forth in the PFS Proposed Rule.*

- Among other things, the PFS Proposed Rule would add two new codes to the telehealth list, HCPCS codes G0513 and G0514, which would be used to report prolonged preventive services beyond the typical service time of the primary procedure.

    - *Philips recommendation: We understand that, generally, Medicare patients underuse preventive health services and believe that adding these codes to the telehealth list has the potential to increase utilization of preventive health services.*

- The Proposed Rule implements a statutory provision that expanded the use of telehealth for purposes of diagnosis, evaluation, or treatment of symptoms of an acute stroke (acute stroke telehealth services) for beneficiaries by eliminating the originating site restrictions generally applicable to telehealth services. To implement the provision, the Proposed Rule would create a new modifier that would be used to identify acute stroke telehealth services. CMS also proposes to revise §410.78(b)(3) of its regulations to add mobile stroke unit as a permissible originating site for acute stroke telehealth services, defining a mobile stroke unit as a mobile unit that furnishes services to diagnose, evaluate, and/or treat symptoms of an acute stroke.

    - *Philips recommendation: Philips supports the proposed implementation of Medicare coverage for acute stroke telehealth services, including the inclusion of mobile stroke units as permissible originating sites. In light of the clinical need for expeditious treatment for acute stroke, we believe that this expansion of Medicare's telehealth coverage will fill a needed payment gap that will make a significant difference in the treatment and prognosis of stroke victims.*

II. Proposed Revisions of Equipment and Supply Direct Cost Inputs

CMS is proposing to update the Direct Practice Expense (PE) inputs for supply and equipment pricing using data obtained from a contractor, StrategyGen, which obtained equipment and supply cost data from a variety of sources, including telephone surveys, review of (unidentified) data bases, vendor surveys, physician input, and statistical analyses. While we understand that current equipment and supply pricing used by CMS to value the Practice Expense (PE_ component of PFS allowances is far from ideal –relying as it does on a handful of paid invoices for various pieces of equipment), we are concerned that the pricing methodologies used by StrategyGen lack transparency. For example, the Equipment Dataset upon which StrategyGen relies is unidentified, and the description that is available strongly suggests that this database primarily includes pricing data reported by hospitals and large integrated health care systems and

therefore reflects discounts that generally are not available to the physician practices subject to the PFS. Moreover, the specific data source(s) –be it a survey, physician input, a published data compilation or other primary source --used to price particular pieces of equipment are not identified in the StrategyGen report. Without this data, it is difficult to formulate meaningful comments in response to the CMS' equipment and supply repricing proposal.

CMS also notes that "while there were no statistically significant differences in pricing at the aggregate level, medical specialties will experience increases or decreases in their Medicare payment if CMS were to adopt the pricing updates recommended by StrategyGen." We believe that the need for clarity in identifying the source of the StrategyGen data is especially important in light of the specialty-level effects of this new data.

> *Philips recommendation: Philips recommends that CMS require StrategyGen to publish the source(s) used to determine the proposed repricing of each piece of equipment and supplies included in the StrategyGen report, to facilitate meaningful comment on particular equipment and supply costs and to refrain from adopting the StrategyGen pricing of equipment and supplies pending publication of transparent data sources. Additionally, we recommend CMS appoint an independent panel to review the cost methodology for PE cost determination. Finally, we recommend CMS phase in any PE payment reductions over a longer period of time to allow providers to implement cost savings measures to account for any decreased reimbursement.*

While formulation of meaningful comments is difficult without this source data, Philips has identified a number of services and service categories that appear to have been mis-priced in the StrategyGen report, as discussed below.

A. Ultrasound Services

Under the PFS Proposed Rule, Medicare allowances for ultrasound services (including general ultrasound, vascular ultrasound, and echocardiography) would decrease substantially. While a number of factors may be involved in the proposed reductions for ultrasound services, it appears that a primary contributing factor is the repricing of "ultrasound rooms" in the StrategyGen report:

Room Type	**CMS_CODE**	**CMS_Current**	**Recommended Price**
u/s room (general)	EL015	$369,945.000	$130,252.571
u/s room (vascular)	EL016	$466,492.000	$199,449.308

We note that StrategyGen did not appear to re-price the echocardiography u/s room, whose direct cost inputs were revised just last year.

We believe that the StrategyGen repricing of these u/s rooms lacks face validity. In fact, the prices recommended by StrategyGen are lower than the recommended price for an x-ray room and for radiography/fluoroscopy room, which involve significantly less costly equipment:

Room Type	**CMS_CODE**	**CMS_Current**	**Recommended Price**
Room, basic radiology	EL012	$127,750.000	$246,216.371
Room/radiographic/fluoroscopic	EL014	$367,664.000	$678,171.260

Unfortunately, neither the PFS Proposed Rule nor the StrategyGen report indicates what equipment is included in the ultrasound rooms.

> *Philips Recommendation: Philips strongly recommends that CMS refrain from instituting StrategyGen's proposed repricing of the general and vascular ultrasound rooms as set forth in the PFS Proposed Rule, pending publication of the basis for StrategyGen's proposed repricing of ultrasound room inputs and an opportunity for comment. Since the echocardiography room was re-priced just last year and was not repriced by StrategyGen, we request that CMS retain current pricing for the echocardiography room, rather than basing 2019 allowances on the repriced ultrasound room (vascular), as set forth in the Proposed Rule.*

B. IVUS, Atherectomy and Other Vascular Procedures

We also note that Medicare payment for IVUS and a number of catheter-based vascular procedures would be reduced substantially under the PFS Proposed Rule. Again, it appears that proposed repricing of the equipment and supplies associated with these services may be a critical factor contributing to the proposed reductions. For example:

Room Type	CMS_CODE	CMS_Current	Recommended Price
IVUS System	ES047	$134,025.000	$116,772.293

Also, it appears that the devices used to price SD253, Atherectomy Device consist of the Spectranetics Laser or Fox Hollow. The Spectranetics Laser is no longer typically used; rather, the associated pricing should be based on the current generation device: Philips Turbo (for Spectranetics Laser). Moreover, it is unclear how CMS arrived at the $2,293 recommended price for atherectomy in the 2019 PFS Proposed Rule. A well-established 2018 hospital pricing guide for atherectomy devices shows such products are well above the $3,200 price point and even GSA best pricing shows a price point of $3,084 for atherectomy devices. Philips notes the Cardiovascular Coalition (CVC) has collected 9 invoices for atherectomy devices that reflect an average supply cost of $3,569.

> *Philips Recommendation: Philips strongly recommends that CMS refrain from instituting StrategyGen's proposed repricing of the interventional radiology equipment and supplies identified above, pending publication of the basis for StrategyGen's proposed repricing and an opportunity for public comment.*

C. Radiation Oncology

In our view, a number of pieces of equipment involved in the provision of radiation oncology services likewise lack face validity. For example, specialized equipment used in the provision of Stereotactic Radiosurgery(SRS) (ER083) would be reduced by 77% and cost of the HDR Afterloading System (ER003) would be reduced by 70%. It is of particular concern that the cost of an IMRT Treatment Planning System, a commonly performed service, would be reduced by 55% (from $350,545 to $157,393) if the StrategyGen equipment recommended pricing is adopted without change in the PFS Final Rule.

We note that a study conducted by Avalere based on actual equipment invoices for SRS, Brachytherapy and IMRT treatment planning equipment suggests that the StrategyGen recommendations are not supportable. This study was submitted by AdvaMed in response to the Proposed Rule, and Avalere's comments on this issue are incorporated by reference.

- *Philips Recommendation: Philips strongly recommends that CMS refrain from instituting StrategyGen's proposed repricing of the equipment involved in the provision of SRS, Brachytherapy, and IMRT Treatment Planning as set forth in the PFS Proposed Rule, pending publication of the basis for StrategyGen's proposed repricing, an opportunity for public comment, and submission of invoices in accordance with a process that protects the confidentiality of manufacturer pricing data.*

III. Valuation of X-Ray Services

The PFS Proposed Rule rejects the RUC's recommendation with respect to a number of X-Ray services on the grounds that the recommended valuation of these codes was not based on the RUC's generally applicable survey process.

Recommendation: Philips recommends that CMS adopt the recommendation of the American College of Radiology with respect to the valuation of these services.

IV. Removal of Sleep Apnea Quality Measures

Recommendation: For the reasons set forth in the comments submitted by the American Academy of Sleep Medicine (AASM) comments, Philips opposes the proposed removal of remove two AASM-stewarded obstructive sleep apnea (OSA) measures from the Merit-based Incentive Payment System (MIPS) program for the 2021 payment year (and future years). The measures proposed for removal are:

- *276 – Sleep Apnea: Assessment of Sleep Symptoms*
- *278 – Sleep Apnea: Positive Airway Pressure Prescribed*

V. New CPT codes

Philips supports the adoption of new CPT codes for reporting of various imaging and imaging guidance-related procedures and especially urges CMS to adopt the comments submitted by the RUC and the ACR with respect to valuation of the following new services:

- Breast MRI with Computer-Aided Detection (CPT codes 77X49, 77X50, 77X51, and 77X52;
- Ultrasound Elastography (CPT codes 767X1, 767X2, and 767X3);
- Magnetic Resonance Elastography (CPT code 76X01)
- Contrast-Enhanced Ultrasound (CPT codes 76X0X and 76X1X)
- Fine Needle Aspiration ((CPT codes 10021, 10X11, 10X12, 10X13, 10X14, 10X15, 10X16,
- 10X17, 10X18, 10X19,)) Proposed Rule also would revalue related imaging codes76492, 77002 and 77021).

VI. Unanticipated Consequences of Proposal to Revise E/M Coding and Allowances

As part of its proposal to revise Medicare coding and payment allowances for E/M services, CMS proposes to establish a separate Indirect Practice Cost Index (IPCI) for Office Visits. This proposal

would result in substantial and unjustified swings in Medicare payment based on specialty, including substantial Medicare payment reductions for medical specialties of particular interest to Philips, including, sleep medicine, peripheral vascular disease, and vascular surgery. See Attachment A. Philips is concerned that CMS has not offered more information regarding the specialty-based changes and is further concerned by the impact that these changes could have on beneficiary access to the services and the providers that are required to address their health care needs.

CMS does not offer any explanation for changing the IPCI methodology to include a separate specialty designation for E/M office visits. While adoption of this important proposal would significantly impact Medicare payment, it is not discussed in the preamble to the Proposed Rule, and does not appear to be justified. In e-mail correspondence, CMS has provided the following explanation for this change:

> The cause of the shifts in the IPCIs is largely due to the proposal to establish a separate PE/hour and create a separate specialty for the E/M office visit codes (CPT codes 99201-99215). In prior calendar years, the E/M office visit codes were considered to be part of the specialties reporting these codes for indirect PE purposes (including the specialty IPCIs). We proposed a single PE/HR value for E/M visits (including all of the proposed HCPCS G-codes for E/M visits) of approximately $136, based on an average of the PE/HR across all specialties that bill these E/M codes, weighted by the volume of those specialties' allowed E/M services. In doing so, we created a separate specialty for the E/M office visit codes as part of our proposal to establish a single PFS rate for level 2 through level 5 office visit codes. If we did not create a separate E/M specialty in this fashion, we would not have been able to establish a single valuation, as the indirect PE assigned to these codes would not be the same. (This is due to the fact that the specialty makeup of these CPT codes is not the same, which caused them to receive different amounts of indirect PE unless they were all assigned to a new and separate E/M specialty with its own IPCI.) CPT codes 99201-99215 have high levels of utilization, and moving them into a separate specialty for indirect PE purposes shifted the specialty IPCI for the remaining codes in each specialty, in some cases causing it to increase and in some cases causing it to decrease. Another way to estimate the specialty IPCI impact of creating the E/M specialty for E/M office visit codes is by examining the specialty IPCI weighted by the specialty's non-E/M PFS spending and the E/M-specialty IPCI weighted by the E/M PFS spending for that specialty.

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We do not believe that the proposal to modify the methodology used for computing the IPCIs for various specialties is justified for two reasons. First, creating a separate specialty" pool for all E/M services necessarily implies that the indirect costs attributable to E/M services can be separated from indirect costs for other services provided by physicians in the same specialty. However, by definition, indirect costs cannot be allocated to particular services: This is what distinguishes indirect from direct costs, which can be allocated to specific services. Therefore any attempt to separate the E/M services provided by a specialty from other services provided by the same specialty is conceptually flawed from the inception.

Second, the outcome of this methodology simply makes no sense. The IPCI is intended as a methodology to "right size" the indirect costs that result from application of PE/hr. survey data for a specialty with a "pool" of indirect costs that is determined based on utilization of services in the pool. CMS' proposal to modify the coding and allowances for E/M services does not impact whether the PE/hr. reflected in the

SMS survey data overstates, understates, or correctly reflects a specialty's indirect costs. Nor should the E/M coding and payment changes proposed by CMS modify the total proportion of a specialty's services dedicated to E/M services or the "mix" in the complexity of those services, which should, after all, be dictated by patient need. So why should a modification that revises E/M code specificity result in reductions of up to 39% of a specialty's indirect costs?

Finally, the creation of a separate pool for E/M services is not necessary in order for CMS to compute the IPCIs. E/M services are currently provided by many different specialties, and yet a separate E/M specialty pool is not necessary in order to ensure that a single payment is made for all E/M services reported using a particular E/M code. The same methodology could be used to establish the IPCIs for 2019 if the new coding and payment allowances for E/M services are adopted, without creating the IPCI distortions set forth in the PFS Proposed Rule.

> *Philips recommendation: We recommend that CMS refrain from creating a single E/M specialty pool in determining the IPCI adjustments in the 2019 PFS.*

VII. RFI on Interoperability

Please find attached Philips response to CMS' RFI regarding Interoperability, which was initially submitted in response to a similar RFI included in the Hospital Inpatient Prospective Payment Proposed Rule. Attachment B.

We appreciate the opportunity to comment on the PFS Proposed Rule. If you have any questions or need any further information on these comments, please contact Lucy McDonough at Lucy.McDonough@Philips.com.

Sincerely yours,

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Attachment A

Specialty	CY 2018 IPCI	CY 2019 IPCI	Difference % (2018-2019)
01 - General practice	0.88146	0.94841	7.6%
02 - General surgery	0.91863	0.92431	0.6%
03 - Allergy/immunology	0.92911	0.59153	**-36.3%**
04 - Otolaryngology	1.0842	0.91784	**-15.3%**
05 - Anesthesiology	0.44674	0.44988	0.7%
06 - Cardiology	0.87989	0.85107	**-3.3%**
07 - Dermatology	1.57897	1.38634	**-12.2%**
08 - Family practice	1.04895	1.15431	10.0%
09 - Interventional Pain Management (IPM) (eff. 4/1/2003)	1.29055	1.06712	**-17.3%**
10 - Gastroenterology	1.14369	1.18576	3.7%
11 - Internal medicine	1.14451	1.28772	12.5%
12 - Osteopathic manipulative therapy	0.58999	0.61486	4.2%
13 - Neurology	1.2259	1.22496	**-0.1%**
14 - Neurosurgery	1.19178	1.17824	**-1.1%**
15 - Speech Language Pathology	1.53333	1.48018	**-3.5%**
16 - Obstetrics/gynecology	0.99878	0.94621	**-5.3%**
17 - Hospice & Palative Care	1.55657	1.60776	3.3%
18 - Ophthalmology	1.63773	1.58959	**-2.9%**
19 - Oral surgery (dentists only)	1.47756	1.18968	**-19.5%**
20 - Orthopedic surgery	1.30809	1.27146	**-2.8%**
21 - Cardiac Electrophysiology	1.19172	1.22461	2.8%
22 - Pathology	1.37016	1.26837	**-7.4%**
23 - Sports Medicine	0.90067	0.82904	**-8.0%**
24 - Plastic and reconstructive surgery	1.53104	1.52716	**-0.3%**
25 - Physical medicine and rehabilitation	1.39506	1.45210	4.1%
26 - Psychiatry	0.46588	0.54624	17.2%
27 - Geriatric Psychiatry	0.47175	0.51488	9.1%
28 - Colorectal surgery (formerly proctology)	0.95702	0.94923	**-0.8%**
29 - Pulmonary disease	0.71062	0.74258	4.5%
30 - Diagnostic radiology	0.9557	0.94880	**-0.7%**
31 - Intensive Cardiac Rehab	New	2.18878	NA
33 - Thoracic surgery	0.72148	0.71228	**-1.3%**
34 - Urology	0.90628	0.81272	**-10.3%**
35 - Chiropractic	0.90425	0.83782	**-7.3%**
36 - Nuclear medicine	0.43319	0.43884	1.3%
37 - Pediatric medicine	0.89773	0.94410	5.2%
38 - Geriatric medicine	0.81196	0.87037	7.2%
39 - Nephrology	0.80793	0.83468	3.3%

40 - Hand surgery	1.47893	1.45104	**-1.9%**
41 - Optometry (revised 10/1993 to mean optometrist)	0.90248	0.87532	**-3.0%**
42 - Certified nurse midwife (eff. 1/1987)	1.16968	1.25529	7.3%
44 - Infectious disease	1.44557	1.52161	5.3%
46 - Endocrinology (eff. 5/1992)	0.97732	1.04927	7.4%
47 - Independent Diagnostic Testing Facility (IDTF) (eff. 6/1998)	0.75473	0.73158	**-3.1%**
48 - Podiatry	0.62502	0.58503	**-6.4%**
62 - Psychologist (billing independently)	0.5351	0.51008	**-4.7%**
63 - Portable X-ray supplier	1.6897	1.55428	**-8.0%**
64 - Audiologist (billing independently)	1.35344	1.32673	**-2.0%**
65 - Physical therapist (private practice added 4/1/2003) (indepe	0.77628	0.75787	**-2.4%**
66 - Rheumatology (eff. 5/1992) During 1993 and 1994 DMERC also	0.91404	0.55731	**-39.0%**
67 - Occupational therapist (private practice added 4/1/2003) (in	1.05513	1.01630	**-3.7%**
68 - Clinical psychologist	0.37288	0.35634	**-4.4%**
69 - Clinical laboratory (billing independently)	0.55264	0.50264	**-9.0%**
70 - Multispecialty clinic or group practice	1.04356	1.01346	**-2.9%**
71 - Registered Dietician/Nutrition Professional (eff. 1/1/2002)	1.78198	1.97468	10.8%
72 - Pain management (eff. 1/1/2002)	1.10653	0.94444	**-14.6%**
76 - Peripheral vascular disease (eff. 5/1992)	0.54518	0.41713	**-23.5%**
77 - Vascular surgery (eff. 5/1992)	0.44711	0.40216	**-10.1%**
78 - Cardiac surgery (eff. 5/1992)	0.71004	0.70596	**-0.6%**
79 - Addiction medicine (eff. 5/1992)	0.43354	0.53839	24.2%
80 - Licensed clinical social worker	0.34649	0.34182	**-1.3%**
81 - Critical care (intensivists) (eff. 5/1992)	1.14438	1.15272	0.7%
82 - Hematology (eff. 5/1992)	1.75755	1.63797	**-6.8%**
83 - Hematology/oncology (eff. 5/1992)	1.45557	1.16230	**-20.1%**
84 - Preventive medicine (eff. 5/1992)	1.03215	0.97314	**-5.7%**
85 - Maxillofacial surgery (eff. 5/1992)	1.37211	1.34892	**-1.7%**
86 - Neuropsychiatry (eff. 5/1992)	0.38976	0.37313	**-4.3%**
90 - Medical oncology (eff. 5/1992)	1.44812	1.06195	**-26.7%**
91 - Surgical oncology (eff. 5/1992)	0.96857	0.98140	1.3%
92 - Radiation oncology (eff. 5/1992)	1.13118	1.09876	**-2.9%**
93 - Emergency medicine (eff. 5/1992)	0.46438	0.46446	0.0%
94 - Interventional radiology (eff. 5/1992)	0.41992	0.43091	2.6%
98 - Gynecologist/oncologist (eff. 10/1994)	1.16941	1.14304	**-2.3%**
99 - Unknown physician specialty	1	1.00000	0.0%
C0 - Sleep Medicine	0.94298	0.74659	**-20.8%**
C6 - Hospitalist	New	0.71675	NA
C7 - Advanced Heart Failure and Transplant Cardiology	New	1.48930	NA
EM - Evaluation and Management	New	1.09447	NA

Attachment B

Philips Comments on Interoperability RFI

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III. Response to Interoperability Request for Information (RFI)

The section of our comments set forth below addresses CMS' RFI regarding barriers to interoperability and the potential role of the Advancing Interoperability program in addressing these barriers.

A. Barriers to Interoperability

The IPPS Proposed Rule solicits comments on identifying fundamental barriers to interoperability and health information exchange, including but not limited to those specific barriers that prevent patients from being able to access and control their medical records. We support the alignment of IPPS and TEFCA standards with respect to the version of CEHRT required to help address interoperability issues. While we are encouraged that the IPPS Proposed Rule evidences significant and ongoing collaboration between CMS and ONC to remove barriers to interoperability substantial barriers to interoperability remain. We strongly recommend that CMS and ONC jointly focus on these areas (as well as on encouraging participation in TEFCA), to help address this ongoing problem.

- **Exchange standards.** While standards and protocols for the exchange or transport of data are becoming more uniform, issues remain. For example, the proposed TEFCA standards emphasize IHE's XDS and XCPD as the main transport standards. In the current ONC 2015 Edition standards, XDR and XDM are cited (along with the ability for CCDA 2.1 and the reading of CCDA 1.1). We recognize that these sets of transport standards are quite similar in nature, but since joining the TEFCA process will remain voluntary, and that the current IPPS rule does not - and necessarily should not - prescribe exchange standards within its scope, we recommend that the TEFCA final rule include language reconciling the IHE transport standard sets that all stakeholders must utilize. We encourage CMS and ONC to prescribe consensus in this area through regulation. IHE protocols are widely used, and crystalizing these standards will not impose substantial burdens on vendors or health systems.

- **Proprietary data code sets.** A much more challenging barrier to interoperability are the legacy, proprietary code sets currently used by health systems. A 2018 HIMSS Analytics survey found that the average hospital system incorporates 16 disparate EHRs within its system, including those EHRs utilized by affiliated practices. And in our experience as much as 50 percent of the data compiled from a given health system's disparate EHRs are derived from legacy systems, necessitating normalization of custom coding. For example, there are several hundred differing codes for a routine blood glucose monitoring test (A1c)that must be normalized.) ONC Director Rucker has himself emphasized this problem in remarks made at the Academy Health Datapalooze this Spring.

  To address this issue, we recommend a concerted effort toward better syntactic and semantic normalization of data points, which are then exchanged as the common clinical data set (or the

upcoming TEFCA USCDI) via IHE query and retrieve protocols. Data normalization is also needed to achieve interoperability for the purpose of population health management and public reporting. We note that this issue is being addressed to some extent by TEFCA, which makes it clear that a single, closed EHR network cannot be a qualified health information network.

B. **Towards a Hybrid Push/Pull Model of Interoperability**

In the industry, there are two different types of models for integration, namely "push" and "pull" (otherwise known as query and retrieve). Both modes of exchanging data have their benefits, and we believe that the policy reflected in the Advancing Interoperability Program should be sufficiently nuanced to encourage the adoption of both "push" and pull" models, as necessary to achieve the various objectives of the program. The two exchange models are not mutually exclusive, and can actually reinforce each other. For example, the IHE DSUB profile is an excellent example of pushing and pulling data coming together in a single profile to solve a complex interoperability problem.

For use cases outside of public health management, a query/retrieve model offers a tried and true option for exchange of data. For example, health information exchanges powered by the Forcare interoperability platform have been serving this model of information exchange for a decade. This model is universally understood by both vendors and health systems. The model of query/retrieve allows for easier governance of PHI from a security standpoint, and the granularity of data allows HIEs and other brokers to control authentication and authorization in a way that lowers the risk of unintentional disclosure. For these reasons, we support those provisions of the Proposed Rule that rely on a pull model, for example to achieve the Provider to Patient Exchange objective.

On the other hand, we strongly believe that overcoming barriers to interoperability in an era where population health management, value-based care data submission models and a patient-centric delivery system are paramount, means moving certain interoperability use cases to a push model standard. . For example, for the IPPS Proposed Rule Public Health Reporting Objective, a push framework would be significantly less burdensome architecturally. To achieve population-level data exchange via pull (aka query and retrieve) models, new processes are needed—processes that are not necessary for push models. Our Philips Wellcentive PHM platform, for example, currently operates thousands of data exchange interfaces, and only a small fraction of those are pull based.

For this reason, it is noteworthy that hospital systems are finding successful early results with a push model approach. As detailed in the May 24, 2018 New England Journal of Medicine, the Penn Medicine system has been piloting a push model. As the article notes, "residents who opted in were subscribed to push notices about their patients' medication expirations." Participating residents also learned immediately about discharges and received summaries of care. Cross-disciplinary teams were automatically alerted to ED admissions. The article concludes by noting that after one year, "30-day readmissions and total hospital days had decreased by 67 percent and 56 percent respectively." Thus push notifications led to more efficient care and fewer clinical gaps. The article notes that the awareness provided by push alerts in inpatient settings "is also relevant for patients in any setting".

In considering how the Advancing Interoperability Program can most effectively encourage interoperability, we urge CMS to consider how both push and pull models of integration can be used to achieve the different objectives of the program.

Given the substantial administrative and technological barriers involved, it is clear that seamless, bi-directional and patient-friendly interoperability will not be achieved overnight. But we applaud CMS for taking a fresh look at the MU program as a potentially powerful tool to accelerate progress toward this goal.