IDSA COMPENSATION & VALUE TASK FORCE UPDATE

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Director Solid Organ Transplant Infectious Diseases, LHMC

IDAC 35TH Annual Spring Symposium Lecture Series
6 May 2021
I have no disclosures

- except that I am an ID Physician, and
- much of this work was/is done with other ID physicians supported by IDSA
Careers are not always linear
Here is mine

1991: completed ID fellowship at Boston University

1991 – 1999: academic ID, bench research on complement interactions with *Neisseria gonorrhoeae* & clinical ID / HIV / medicine attending

1999 – 2002: clinical ID / IM practice at a small community hospital in Needham, MA

2002 – now: general clinical ID practice at LHMC, Solid Organ Transplant ID Director since 2012

2004: joined IDSA Clinical Affairs Committee at the urging of one of my medical school classmates, Larry Martinelli, later succeeded him as chair

2006: joined Dr. Martinelli representing IDSA at the AMA-RUC

2016: IDWeek Chair; 2016 – present IDSA Board
Why look at ID Physician Value?
Where is the ID in Covid-19?


ID Physician Density per 100,000 Populations by County

- Above National Average Density (1.76 per 100,000 US Population)
- Below National Average Density (1.76 per 100,000 US Population)
- No ID Physician
The distribution of ID physicians in the United States is geographically skewed.

ID training programs have struggled to fill positions.

In the counties with the top quartile of COVID-19 cases today, 80% have below-average ID physician density or no ID physicians at all.

Nearly two thirds of all Americans live in the 90% of counties with below-average or no ID physician access, and these counties encompass vast—largely rural—parts of the country.
AMGA 2015 Physician Compensation and Work RVU by Specialty
First, the mundane

Medicare RBRVS / AMA CPT-RUC
How do we get paid?
Evolution of Physician Payment

- Pre 1992, “Usual Customary and Prevailing Charges”

- 1929 – Blue Cross started at Baylor University Hospital mainly for Dallas Public School Teachers

- Post WWII – Insurance Industry Expands

- 1965 – Medicare enacted as an Amendment to Social Security Act, signed by President Lyndon Johnson - Harry and Beth Truman first two covered. Previously attempted by Presidents Roosevelt(s), Truman and Kennedy.


- The AMA does not divulge exactly how much it earns from CPT licensing fees, although they are believed to be substantial. A 2001 estimate put the figure at $71 million; its IRS Form 990 for 2017 listed $148 million in "royalties," which is believed to represent CPT code revenues.
How do we get paid?
Evolution of Physician Payment

- 1956 - California Medical Society publishes first Relative Value Based Fee Schedule
- Growth of Private Industry results in need for fee schedules, published by many Medical Societies.
- 1980’s – facing threat of capitation, AMA encourages Congress to develop Relative Value fee schedule.
How do we get paid?

Evolution of Physician Payment

- 1985 – Consolidated Omnibus Budget Reconciliation Act, established payment commission to advise Congress on physician payment. Also mandated a relative value scale based on site of service, skill and training, time and risk.

- 1986 – William C. Hsiao, Ph.D. *et al* of Harvard School of Public Health awarded contract by CMS to develop the Resource Based Relative Value Scale (RBRVS). Subsequently used by all payers in U.S. as basis of payment to physicians.
How do we get paid?
Medicare RBRVS

Twin papers by Hsiao *et al* in NEJM Sept 29, 1988:

- *Estimating Physicians’ Work for a Resource-Based Relative-Value Scale*
- *Results and Policy Implications of the Resource-Based Relative-Value Scale*

Created payment formula equivalent of $E = mc^2$:

\[
RBRV = (TW) (1+RPC) (1+AST)
\]

- 1989 Omnibus Budget Reconciliation Act switched CMS to RBRVS
- 1991 CMS delegates updates to RBRVS to AMA Specialty Society Relative Value Scale Update Committee – the “RUC”.
- Jan 1, 1992 CMS implements RBRVS for physician payment – rapidly mirrored by private insurers.
How do we get paid?

**RUC Basics**

- **Composition:**
  - [List of RUC members]

- **Meeting cycle:**
  - 3 times yearly, approx. 4 days

- **Setting:** Hotel ballroom, U-shape table for panel, society presenters at the end, approx. 300 society members and staff in the audience.
How do we get paid?

Medicare RBRVS

- Total RVU = Work RVU (wRVU) + Practice Expense RVU + Malpractice Expense RVU

- wRVU = Time x Intensity: Technical Skill and Physical Effort, Mental Effort and Judgment, Psychological Stress

- The last term in the original RBRVS Hsiao equation, (1 + AST), the proxy for opportunity cost of training, was dropped.

- RVU is multiplied by the conversion factor set by CMS that accounts for required budget neutrality to determine payment

*The Conversion Factor for 2019 = $36.04
2021 = $34.89*
How do we get paid?
Medicare RBRVS

The RUC Process

- CMS Requests Review of Existing Codes
- CPT Editorial Panel Adopts Coding Changes

Specialty Society Advisors Review New and Revised or Existing CPT Codes

- Codes Do Not Require New Values
- No Comment
- Comment on Other Societies’ Proposals
- Survey Physicians; Recommend Values

- RVS Update Committee
- Specialty Society RVS Committee

- Centers for Medicare & Medicaid Services

- Medicare Payment Schedule
Issues with the RUC process

Medicare RBRVS

- Elephant in the room: Committee of doctors sends out surveys to other doctors asking them what their codes should be worth.
- Hsiao survey methodology much more robust.
- Intensity measures hard to determine accurately.
- Time estimates typically overestimated – extant databases not used systematically.
- Human panelists subject to multiple types of bias.
- Only society members are surveyed.
- Surveys often confusing to members, response rates low.
- Survey data often not normally distributed.
- Practice expense equipment costs determined by sales receipts.
- Hsiao assumed government would manage RBRVS updates, but CMS very understaffed in relation to task of validating fee schedule.
- Budget neutrality requirement creates significant negative incentive to increase values for codes with high utilization, e.g. E/M codes!
- Of the approx. 10,000 CPT codes, vast majority are procedure related.
- As procedure codes require greater precision, families are split, aggregate values increase at the expense of non procedure codes.
Some good news for 2021
Redefined & Revalued Outpatient E/M

- *Not* a direct result of the RUC.
- Outpatient E/M levels determined solely by Medical Decision Making or Time.
- Time definition now broadened to include all time on date of service, even non face-to-face.
- No more ‘95 or ‘97 guideline bullet counting.
- Several codes for non face to face time between visits.
- CCM, CCCM, TCM, PCM codes.
- Solid support from CMS (in fact, this was first proposed by CMS as part of a “Patients over Paperwork” effort)
OVERVIEW OF CMS CHANGES

- Intent of changes is for the fee schedule to align with the movement towards value-based healthcare
- Significant increase to office visit wRVUs; decrease in other CPT codes
- 3.33% reduction in conversion factor with the overall intent to be budget neutral for CMS
- The changes create increases and decreases to compensation by specialty

- New office visits: 7 to 13% wRVU increase
- Established office visits: 28 to 46% wRVU increase
G2211 Visit complexity inherent to evaluation and management associated with medical care services that serve as the continuing focal point for all needed health care services and/or with medical care services that are part of ongoing care related to a patient’s single, serious condition or a complex condition. (Add-on code, list separately in addition to office/outpatient evaluation and management visit, new or established). **0.33 RVU**

Sounded great, however the conversion factor for 2021 would decrease by nearly 10% from $36.09 to $32.41, with ID projected to see approximately a 4% decrease in overall payments due to the budget neutrality adjustment as required by law.
Forces outside the RUC-CMS process

At the end of December 2020, Congress passed the Consolidated Appropriations Act that, among other policies, legislatively delayed payment for code G2211 (complex patient care add-on code that was finalized by CMS in the CY2021 Physician Fee Schedule) until at least 2024.

- This in effect eliminated the projected overall loss.
- However, this is only a 1 year fix.
Learn from the ID Experts: Navigating the Revised CPT® Codes for Office and Outpatient E/M Services

1/25/2021

E/M Workgroup Webinar: Navigating the Revised CPT® Codes for Office and Outpatient E/M Services

Ronald Devine, MD, FACP, FIDSA
Prashant Malhotra, MD, FACP, FIDSA

Revised CPT® codes and associated documentation for office/outpatient evaluation and management (E/M) services are now in effect. Dr. Ronald Devine and Dr. Prashant Malhotra, IDSA members and CPT code experts, explain the revisions and how to navigate the changes. This webinar was created specifically for infectious diseases physicians. Using real-world clinical examples derived from patient encounters with infectious diseases physicians, the panelists discuss how to choose the appropriate E/M code level based on chart documentation, medical decision making and other factors. The panelists cover several topics including how to choose an E/M code level using medical decision making or time, a

Potentially more good news for 2022

Medicare RBRVS

- Inpatient E/M codes are being resurveyed by the RUC with proposed documentation relief similar to the outpatient codes, values may go up as well.
- Consult codes are being reconsidered and resurveyed.
What about ID Value?

We all know how valuable we are – shouldn’t that be enough?
Conversation in health care reform is about **value**

Critical questions:

- What value does each specialty bring to the table?
- Can specialty care actually bend the cost curve?

\[
\text{Value} = \frac{\text{Quality}}{\text{Cost}}
\]
To generate more robust data regarding the impact of ID consultation using claims databases

Outcomes significant in the health care reform conversation

- Mortality
- Readmission rate
- Length of stay
- Resource utilization
## IDSA-Sponsored research

<table>
<thead>
<tr>
<th>Medicare</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>• One article published ~2013</td>
<td>• Two articles published ~2018</td>
</tr>
<tr>
<td>• Used data from 2(^{nd}) largest payer in U.S.</td>
<td>• Used data from the largest payers in the U.S.</td>
</tr>
<tr>
<td>• 65 year and up population</td>
<td>• Under 65-year-old population</td>
</tr>
<tr>
<td>• Contractor: Avalere</td>
<td>• Contractor: Truven</td>
</tr>
</tbody>
</table>

- Medicare
  - One article published ~2013
  - Used data from 2\(^{nd}\) largest payer in U.S.
  - 65 year and up population
  - Contractor: Avalere

- Private
  - Two articles published ~2018
  - Used data from the largest payers in the U.S.
  - Under 65-year-old population
  - Contractor: Truven
Methods
Propensity Score Matching

Propensity score matching is a process that stratifies similarly risk-adjusted patients into treatment and control groups. A matched set consists of at least one participant in the treatment group and one in the control group with similar propensity scores.

“PSM methodology excludes from our analysis a portion of the sickest people in the ID intervention group because there were no available matches in the non-ID intervention group. Since PSM is intended to compare ‘like’ patients, patients who are too dissimilar are not included. Our results may therefore underestimate the impact of ID interventions on some of the most acutely ill patients.” – Schmitt et al.
What is PSM?

- A statistical matching method that matches members of study groups based on a range of characteristics that might affect the outcome of interest, in order to avoid selection bias.
Measuring hospital mortality may overstate the impact of ID intervention on mortality

Unobserved reasons for selection of patients to receive an ID intervention may confound the results

PSM methodology excludes some of the sickest people in the ID intervention group, because they had no matches from the non-ID intervention group

- Impact of ID care may actually be greater for these sicker patients
Study population

Medicare fee-for-service patients with inpatient hospitalizations

- Clostridium Difficile Infection
- Central Line Associated Bloodstream Infections
- Bacterial Endocarditis
- HIV
- Meningitis
- Osteomyelitis
- Prosthetic Joint Infections
- Septic Shock
- Vascular Device Infections

Propensity Score Matching

January 1, 2008 to December 31, 2009

Early ID | Late ID | No ID
**Results: NO ID vs ID**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>No ID</th>
<th>ID</th>
<th>p-Value</th>
<th>OR/%Δ (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index stay length of stay</td>
<td>9.5</td>
<td>9.6</td>
<td>0.001</td>
<td>1.3% (+0.5% – +2.1%)</td>
</tr>
<tr>
<td>Index stay ICU days (^a)</td>
<td>6.7</td>
<td>6.4</td>
<td>&lt;0.001</td>
<td>-3.7% (-5.5% – -1.9%)</td>
</tr>
<tr>
<td>Index stay mortality (%)</td>
<td>10.7</td>
<td>9.8</td>
<td>&lt;0.001</td>
<td>0.87 (0.83 – 0.91)</td>
</tr>
<tr>
<td>30-day mortality (%) (^b)</td>
<td>8.7</td>
<td>7.7</td>
<td>&lt;0.001</td>
<td>0.86 (0.82 – 0.90)</td>
</tr>
<tr>
<td>30-day readmission rate (%) (^b)</td>
<td>22.7</td>
<td>22.1</td>
<td>0.009</td>
<td>0.96 (0.93 – 0.99)</td>
</tr>
<tr>
<td>Medicare payments to ACH for index stay</td>
<td>$15,850</td>
<td>$15,799</td>
<td>0.435</td>
<td>-0.3% (-1.1% – +0.5%)</td>
</tr>
<tr>
<td>Medicare payments for index stay</td>
<td>$18,017</td>
<td>$18,076</td>
<td>0.397</td>
<td>+0.3% (-0.4% – +1.1%)</td>
</tr>
<tr>
<td>Medicare payments for 30-day episode (^b)</td>
<td>$7,706</td>
<td>$7,858</td>
<td>0.069</td>
<td>+2.0% (-0.2% – +4.1%)</td>
</tr>
</tbody>
</table>

Abbreviations: ICU, Intensive Care Unit; ACH, Acute care hospital; PAC, Post acute care; OR, odds ratio; %Δ, percent difference.

\(^a\) Only patients with one or more ICU days.

\(^b\) Excludes patients expiring in the hospital.

"Having an ID Specialist involved in the care of a patient with a severe infection will lead to better outcomes”

*Schmitt S et al. CID 2014; 58: 22–28*
Results: “Early” vs “Late”

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Early</th>
<th>Late</th>
<th>p-Value</th>
<th>OR/Δ% (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index stay length of stay</td>
<td>13.2</td>
<td>13.8</td>
<td>&lt;0.001</td>
<td>-3.8% (-4.8% – -2.9%)</td>
</tr>
<tr>
<td>Index stay ICU days a</td>
<td>7.6</td>
<td>8.1</td>
<td>&lt;0.001</td>
<td>-5.1% (-7.7% – -2.4%)</td>
</tr>
<tr>
<td>Index stay mortality (%)</td>
<td>7.1</td>
<td>7.5</td>
<td>0.122</td>
<td>0.94 (0.88 – 1.02)</td>
</tr>
<tr>
<td>30-day mortality (%) b</td>
<td>8.6%</td>
<td>9.6</td>
<td>&lt;0.001</td>
<td>0.87 (0.82 – 0.93)</td>
</tr>
<tr>
<td>30-day readmission rate (%) b</td>
<td>24.6</td>
<td>26.1</td>
<td>&lt;0.001</td>
<td>0.92 (0.89 – 0.96)</td>
</tr>
<tr>
<td>Medicare payments to ACH for index stay</td>
<td>$18,111</td>
<td>$18,728</td>
<td>&lt;0.001</td>
<td>-3.3% (-4.3% – -2.3%)</td>
</tr>
<tr>
<td>Medicare payments for index stay</td>
<td>$21,453</td>
<td>$22,207</td>
<td>&lt;0.001</td>
<td>-3.4% (-4.3% – -2.5%)</td>
</tr>
<tr>
<td>Medicare payments for 30-day episode b</td>
<td>$8,739</td>
<td>$9,318</td>
<td>&lt;0.001</td>
<td>-6.2% (-8.8% – -3.5%)</td>
</tr>
</tbody>
</table>

Abbreviations: ICU, Intensive Care Unit; ACH, Acute Care Hospital; PAC, Post acute care; OR, Odds Ratio; Δ%, percent difference.

a Only patients with one or more ICU days.

b Excludes patients expiring in the hospital.

“Early involvement of an ID Specialist in the care of patients with severe infection will lead to better outcomes with lower costs”

Schmitt S et al. CID 2014; 58: 22–28
Retrospective analysis of administrative claims data from community hospital and post discharge ambulatory care.

Patients were privately insured individuals less than 65 years old with an acute-care stay in 2014 for selected infections, classed as having:

- early (by day 3) or
- late (after day 3) ID intervention,
- or none.

Key outcomes were mortality, cost, length of the index stay, readmission rate, mortality, and total cost of care over the first 30 days after discharge.
Results

- Patients managed with early ID involvement had shorter length of stay, lower spending, and lower mortality in the index stay than those patients managed without ID involvement.
- Relative to late, early ID involvement was associated with shorter length of stay and lower cost.
- Individuals with early ID intervention during hospitalization had fewer readmissions and lower healthcare payments after discharge.
- Relative to late, those with early ID intervention experienced lower readmission, lower spending, and lower mortality.

Schmitt S et al. CID 2019; 68: 239–46
### Outcomes During the Initial Hospitalization: Early vs. No Infectious Disease Consult

<table>
<thead>
<tr>
<th></th>
<th>Mortality</th>
<th></th>
<th>Incidence Rate</th>
<th></th>
<th>Total Payment</th>
<th>Marginal Effect ($)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Odds Ratio</td>
<td>95% CI</td>
<td>95% CI</td>
<td></td>
<td></td>
<td></td>
<td>95% CI</td>
</tr>
<tr>
<td>Early ID consult</td>
<td>0.658</td>
<td>0.446–0.939</td>
<td>0.772</td>
<td>0.755–0.790</td>
<td>-10888.19</td>
<td>-11651.88 to -10122.06</td>
<td></td>
</tr>
<tr>
<td>ICU</td>
<td>2.481</td>
<td>1.762–3.742</td>
<td>1.117</td>
<td>1.097–1.136</td>
<td>14166.55</td>
<td>12669.26–15625.55</td>
<td></td>
</tr>
<tr>
<td>Bacterial endocarditis</td>
<td>1.147</td>
<td>0.922–1.803</td>
<td>1.044</td>
<td>1.021–1.072</td>
<td>3876.37</td>
<td>2320.45–5442.78</td>
<td></td>
</tr>
<tr>
<td>Bacteremia</td>
<td>0.646</td>
<td>0.452–0.885</td>
<td>1.097</td>
<td>1.078–1.119</td>
<td>1707.45</td>
<td>560.80–2838.14</td>
<td></td>
</tr>
<tr>
<td>CLABSI</td>
<td>0.650</td>
<td>0.106–1.737</td>
<td>1.115</td>
<td>1.058–1.178</td>
<td>2306.97</td>
<td>-542.71 to 5149.21</td>
<td></td>
</tr>
<tr>
<td>C. difficile</td>
<td>0.708</td>
<td>0.354–1.217</td>
<td>1.159</td>
<td>1.121–1.201</td>
<td>3146.36</td>
<td>1086.60–5362.10</td>
<td></td>
</tr>
<tr>
<td>Meningitis</td>
<td>1.783</td>
<td>0.770–3.567</td>
<td>1.172</td>
<td>1.122–1.226</td>
<td>10078.19</td>
<td>7121.91–13399.98</td>
<td></td>
</tr>
<tr>
<td>Osteomyelitis</td>
<td>0.310</td>
<td>0.112–0.958</td>
<td>1.123</td>
<td>1.096–1.150</td>
<td>-1109.66</td>
<td>-2284.64 to 173.86</td>
<td></td>
</tr>
<tr>
<td>Septic arthritis</td>
<td>1.021</td>
<td>0.995–1.049</td>
<td>1.021</td>
<td>0.995–1.049</td>
<td>-6644.54</td>
<td>-777372 to -5521.73</td>
<td></td>
</tr>
<tr>
<td>Septic shock</td>
<td>1.008</td>
<td>0.981–1.038</td>
<td>1.007</td>
<td>0.981–1.038</td>
<td>9078.19</td>
<td>6974.93–1132</td>
<td></td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>1.051</td>
<td>0.885–1.249</td>
<td>1.057</td>
<td>0.885–1.249</td>
<td>270.35</td>
<td>-886.78 to 7425.92</td>
<td></td>
</tr>
<tr>
<td>Vascular device infection</td>
<td>1.106</td>
<td>1.059–1.157</td>
<td>1.107</td>
<td>1.059–1.157</td>
<td>2141.85</td>
<td>-655.19 to 5264.15</td>
<td></td>
</tr>
<tr>
<td>Prosthetic joint infection</td>
<td>2.227</td>
<td>0.914–4.490</td>
<td>1.022</td>
<td>0.914–4.490</td>
<td>9822.76</td>
<td>7583.22–12152.59</td>
<td></td>
</tr>
<tr>
<td>Mean of outcome</td>
<td>1.18%</td>
<td>4.06</td>
<td></td>
<td>$32578.24</td>
<td></td>
<td></td>
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</tbody>
</table>
8200 privately insured individuals under age 65, locating inpatient acute-care stays in 2013 and 2014 that were followed by OPAT.

Patients who received outpatient ID intervention (ID-led OPAT) were matched 1-to-1 by PSM with those who did not (Other OPAT). Regression models of hospital and ED admissions and of total healthcare payments over the first 30 days after discharge.

Soft-tissue infection and osteomyelitis were the most common infections in the index event, each affecting more than 40% of individuals.

Shah A et al. CID 2019; 68: 1160–5
Relative to those with Other OPAT, people with ID-led OPAT had lower odds of:

- an ED admission (odds ratio [OR] 0.449, 95% confidence interval [CI] 0.311–0.645) or
- hospitalization (OR 0.661, 95% CI 0.557–0.791) over 30 days, and
- accumulated $1488 less in total healthcare payments (95% CI -2 688.56–-266.58).

*Shah A et al. CID 2019; 68: 1160–5*
S. aureus bacteremia- ID involvement improved:

- 7d and 30d mortality (PLOS 2017; 12:e0170236)
- Process and outcome (Antimicrob Agents Chemother 2016;60:5682)
- Patient management and survival (Open Forum Infect Dis 2016;3:ofw048)
- 30d mortality, enhanced by involving AST (ICHE 2019;40:932-935)
ID Physician Value
Clinical Impact

ID involvement:

- Improved 90d mortality in non-HIV cryptococcal meningitis (Clin Infect Dis 2017; 64:558)
- Improved diagnostic accuracy for cellulitis in the ED (Diag Microbiol Infect Dis 2017; 87: 371)
- Improved 30d and 1 yr mortality from infections with MRSA, MDRO Enterobacteriaciae (Open Forum Infect Dis 2018 Mar;5(3):ofy026)

- Among patients receiving the SS/SS bundle, early ID consultation was associated with a 40% risk reduction for in-hospital mortality (Open Forum Infect Dis 2019 October;6(10):ofz408)
- Improved mortality from enterococcal bacteremia in children (Open Forum Infect Dis 2020 March;7(3):ofaa064)
### ID Physicians Impact Transitions of Care

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Clinical Impact</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multicenter private practice OPAT (6,120 patients)</td>
<td>57% started therapy in hospital</td>
<td>Petrak OFID 2016</td>
</tr>
<tr>
<td></td>
<td>94% successfully treated as outpatient</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Only 3% hospitalized after starting therapy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>19% therapeutic complication</td>
<td></td>
</tr>
<tr>
<td>ID staffed (IDMC) vs. ER staffed (ERMC) ER cellulitis clinic</td>
<td>40% in IDMC noncellulitis Dx; 11% in ERMC</td>
<td>Jain Diagn Microbiol ID 2017</td>
</tr>
<tr>
<td></td>
<td>Recurrence &amp; hospitalization rates lower in IDMC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No difference in mortality</td>
<td></td>
</tr>
</tbody>
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# Infection Prevention and Antimicrobial Stewardship Programs

<table>
<thead>
<tr>
<th>Infection Prevention and Antimicrobial Stewardship Programs</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CDC IP 2016 data</td>
<td>50% decrease in CLABSI</td>
<td>CDC 2016</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17% decrease in SSI</td>
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<tr>
<td></td>
<td>8% decrease in hospital-acquired CDI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ID physician led AS program 70-bed rural hospital over 3 years</td>
<td>42% decrease in anti-infective expenditures</td>
<td>Day OFID 2015</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Pseudomonas aeruginosa</em> susceptibility improvement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 hospital network over 7 years</td>
<td>Decreased HAI rates 50%</td>
<td>Anderson ICHE 2011</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Decreased costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prevented 52-105 deaths from CLABSI or VAP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AS in LTAC via remote EHR access</td>
<td>Decreased antibacterial usage</td>
<td>Boulac ICHE 2016</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Decreased CDI rates</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ID Physician Value
The Health of Healthcare institutions

ID plays a leading role:

- Core measures such as pneumonia, CLABSI, CAUTI – maximize reimbursement and save lives

- Antimicrobial stewardship programs – save drug costs and resistance

- Infection prevention – save costs and lives

- Care transitions – right diagnosis, right drugs, effective follow-up in outpatient parenteral antibiotic programs

- Employee Health
The Value That Infectious Diseases Physicians Bring to the Healthcare System

Daniel P McQuillan, Ann T MacIntyre

*The Journal of Infectious Diseases*, Volume 218, Issue suppl 5, 15 September 2017, Pages S588-S593, [https://doi.org/10.1093/infdis/jix326](https://doi.org/10.1093/infdis/jix326)

**Published:** 20 September 2017

**Abstract**

While a career in infectious diseases (ID) has always been challenging and exciting, recognition of the value that ID physicians provide to the healthcare system as a whole, over and above the value they provide to individual patients, has been poor in this system. In response to this disparity, the Infectious Diseases Society of America Clinical Affairs Committee has long endeavored to quantify the value of ID physicians to the system, which is challenging in part because of the many avenues through which they influence healthcare. We discuss data showing that ID physicians improve clinical outcomes, positively impact transitions of care, and direct system-level improvements through infection prevention and antimicrobial stewardship. We identify areas where value-based care provides additional future opportunities for ID physicians. A Clinical Affairs Committee–sponsored study of ID physicians’ positive impact on patient outcomes shows that few medical specialties are better positioned to positively impact the Triple Aim approach — better health, better care, and lower per capita cost — that is the principle tenet of healthcare system reform.
Whose definition of value?
Value Definitions

- **The ID Clinician:**

- **The Healthcare System:**
  - VALUE = Quality / Cost
  - What value does each specialty contribute? Can a specialty actually bend the cost curve?

- **The Triple Aim**
  - *Institute for Healthcare Improvement.*
IDSA Physician Compensation Task Force

How did we get here … and where are we going?
IDSA Strategic Plan

- October 2018: BOD began discussions
- April 2019: Membership survey to identify issues of importance
- May 2019: Strategic Plan Task Force Convened
- October 2019: BOD approved Strategic Plan and 2 Strike Teams to develop work plans for the GROW (Value of ID and workforce growth) and TRANSFORM (AMR benchmark) Initiatives
- March 2020:
  - June 2020: BOD met and prioritized the Value of ID Initiative in large part because this was the top priority of membership
COVID-19 Activities in 2020

1. Rapid Development, Dissemination, & Update of Grade-based Clinical Guidelines

2. Issued numerous briefs & organized meetings aimed at educating leaders & policymakers
   • Met with Biden-Harris COVID Advisory Board/Transition Team
   • Frequent interaction with Dr. Fauci & CDC leadership

3. Public Health Messaging Campaign: #MaskUpAmerica

4. Physician/Provider Education:
   • Created informational COVID-related podcasts (>170,000 downloads to date)
   • Organized weekly COVID Clinician calls (~800 participants/week)
   • Created the COVID Real-Time Learning Network & Microsite (>150,000 page views per week)
10 members representing academic and non-academic clinical practice, division chairs, CEOs and other diversity metrics including region of practice
## Compensation Task Force

### Objectives

<table>
<thead>
<tr>
<th>Short Term</th>
<th>Intermediate Term</th>
<th>Long Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Increase distribution of education tools and resources for infectious</td>
<td>• Increase the number of ID physicians who are trained and understand best</td>
<td>• Measurably increase compensation among ID physicians</td>
</tr>
<tr>
<td>disease (ID) physicians</td>
<td>practices</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Increase the adoption of guidance by ID physicians</td>
<td>• Measurably improve reported job satisfaction and work-life balance among</td>
</tr>
<tr>
<td></td>
<td>• Evaluate education tools and resources in the environment where they are used,</td>
<td>ID physicians</td>
</tr>
<tr>
<td></td>
<td>with feedback from frontline ID physicians</td>
<td></td>
</tr>
</tbody>
</table>
Compensation Task Force

Work groups

Two work groups will be established to oversee the separate work streams and provide project oversight, review and evaluate tactical plans and materials, and endorse materials and action plans.

**Physician Negotiation Education and Training Goals**

- Better define current compensation structures and levels for ID physicians across various practice settings by collecting more robust and targeted benchmark data that corrects the underrepresentation of effort and homogenization of ID physician roles and responsibilities.
- Identify barriers, facilitators, best practices, and novel approaches to increasing ID physician compensation across practice settings.
- Develop and disseminate education, tools, and resources on negotiation and physician compensation for ID physicians.

**Value-Based Contracting Strategy Expansion Goals**

- Assess the current landscape and feasibility of value-based contracting for ID physician services.
- Develop situational guidelines for value-based contracting.
- Identify existing and develop new quality/value outcomes and metrics for each combination of market and practice dynamics.
- Develop discussion guides to assist ID physicians in conversations with hospital, health system, and AMC administrators about value-based contracting opportunities and appropriate ID-influenced metrics.

5 year time span; work groups include additional IDSA Members to add specific relevant expertise
## Compensation Task Force

### Work group timelines

<table>
<thead>
<tr>
<th>November to December</th>
<th>January to March</th>
<th>April to June</th>
<th>July to August</th>
<th>September to December</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal One: Physician Negotiation Education and Training</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Assess the current IDSA survey data, and perform a gap analysis.</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Collect supplemental data.</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Conduct targeted interviews.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Develop the negotiation playbooks.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socialize key data findings and resources among IDSA members.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Track the success of the negotiation playbooks, and monitor survey data.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional objectives and tactics for 2022 through 2025 to be developed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Concurrent work streams.
- Combined subtasks, likely same interviewees.
- Deliverable[s]
## Compensation Task Force

### Work group timelines

<table>
<thead>
<tr>
<th>November to December</th>
<th>January to March</th>
<th>April to June</th>
<th>July to August</th>
<th>September to December</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal Two: Value-Based Contracting Strategy Expansion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Conduct targeted interviews.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop situational guidelines for value-based contracting.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compile educational materials.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socialize resources among IDSA members.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Webinars, practice briefs, education sessions at IDWeek, IDSA Academy offerings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Track the success of the newly adopted value-based contracting strategies.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional objectives and tactics for 2022 through 2025 to be developed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Compensation growth - ID vs. other

Compensation Growth by Plan Type: ID vs. Other Specialties

In all represented specialties except Critical Care, compensation has grown at a higher rate for physicians on variable compensation plans.

Compensation: Six-Year Growth Rate by Compensation Plan Type

The formula underlying variable compensation plans can be based on production (i.e., WRVUs, collections) or quality metric performance.
Compensation Task Force

Compensation – IDSA surveys

IDSA surveys

**Compensation for 1.0 FTE**

<table>
<thead>
<tr>
<th>Measure</th>
<th>25th</th>
<th>50th</th>
<th>75th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation per 1.0 FTE</td>
<td>2.5%</td>
<td>0.1%</td>
<td>-0.8%</td>
</tr>
</tbody>
</table>

**Note:** Benchmark trends are based on data from the following benchmarks: MGMA, ECG, and IDSA surveys for 2015, 2017, and 2019.
Across all environments, most ID physicians (especially those focused on patient care) have experienced stagnant compensation in recent years.

**Full Time: Patient Care**

<table>
<thead>
<tr>
<th>Year</th>
<th>25th</th>
<th>Median</th>
<th>75th</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>$170,000</td>
<td>$210,000</td>
<td>$260,000</td>
</tr>
<tr>
<td>2017</td>
<td>$170,000</td>
<td>$215,000</td>
<td>$275,000</td>
</tr>
<tr>
<td>2019</td>
<td>$180,000</td>
<td>$226,500</td>
<td>$290,000</td>
</tr>
</tbody>
</table>

**Full Time: Research**

<table>
<thead>
<tr>
<th>Year</th>
<th>25th</th>
<th>Median</th>
<th>75th</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>$150,000</td>
<td>$155,000</td>
<td>$160,000</td>
</tr>
<tr>
<td>2017</td>
<td>$150,000</td>
<td>$190,000</td>
<td>$207,250</td>
</tr>
<tr>
<td>2019</td>
<td>$150,000</td>
<td>$190,000</td>
<td>$254,800</td>
</tr>
</tbody>
</table>

**Three-Year CAGR**

<table>
<thead>
<tr>
<th>Measure</th>
<th>25th</th>
<th>50th</th>
<th>75th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Time: Patient Care</td>
<td>1.4%</td>
<td>1.9%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Full Time: Research</td>
<td>-0.8%</td>
<td>1.4%</td>
<td>4.8%</td>
</tr>
</tbody>
</table>

Composite Benchmarks: Compensation

Compensation has remained stagnant for the past four years.

- Compensation per Physician FTE
  - 2017: $313,098
  - 2018: $260,432
  - 2019: $215,249
  - 2020: $281,833

- Compensation per WRVU
  - 2017: $73.14
  - 2018: $67.13
  - 2019: $56.73
  - 2020: $59.53

- Compensation to Professional Collections
  - 2017: 1.14
  - 2018: 0.88
  - 2019: 0.87
  - 2020: 0.84

Note: Benchmark trends are based on data from the following benchmark sources: MGMA, AMGA, SullivanCotter, and ECG. The blended benchmark shown is based on survey respondent banded weighting, with no further adjustments.
Compensation Growth: ID vs. Other Specialties

Compared to infectious disease, other medical specialties have realized significantly greater compensation growth over the past six years. For some, this growth is explained by changes in reimbursement or other market drivers.

Median Compensation: Six-Year Trend, 2015 to 2020

CAGR = Compounded Annual Growth Rate
### Compensation Task Force

#### Compensation Key Findings

<table>
<thead>
<tr>
<th>Key Finding</th>
<th>IDSA Survey</th>
<th>Multispecialty Surveys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation and production trends are flat across all surveys.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Based on CPT-level data collected by ECG, the average ID provider records three-fourths of patient encounters in an inpatient setting.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>The time commitment and income profiles of ID providers did not change materially from 2017 to 2019.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>The majority of ID providers do not have compensation tied to quality.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Providers with compensation tied to performance were paid materially more than their peers.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Collections and collections per WRVU are both trending down.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>The decrease in collections correlates to an increase in compensation compared to collections.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Only 48% of ID physicians with an employment contract negotiated their compensation.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Those that negotiated their compensation, only 29% were successful.</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Overview Current Survey Data

Between the IDSA survey and national surveys, a large range of information is covered. However, given the complexity and variability of ID roles, additional targeted information is needed to better align compensation with provider effort.

<table>
<thead>
<tr>
<th>Type of Data Question</th>
<th>IDSA Survey</th>
<th>Multispecialty Surveys</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographics and Practice Type</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Compensation</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Production</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Charges and Collections</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Administrative Appointments</td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work Effort</td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future Plans</td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Definition of an FTE</td>
<td></td>
<td>Partial(^1)</td>
<td></td>
</tr>
<tr>
<td>Compensation Plan Types</td>
<td></td>
<td>Partial(^2)</td>
<td></td>
</tr>
<tr>
<td>Administrative Deployment Details</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) The IDSA survey asks for the annual hours of those identifying as part-time physicians, but not of those identifying as full-time physicians.

\(^2\) The IDSA survey asks questions related to “basis of compensation” for physicians in some employment settings, but not all.
The supplemental survey is broken into three main sections and contains fewer than 45 questions. It will capture unique data that will directly influence how the IDSA and the Task Force can influence compensation across the field.

**Demographics and Background**
- Mirrors many demographics-related questions to the IDSA collection method for consistency, such that certain data can be analyzed with past surveys
- Establishes basic provider profiles so comparisons can be made among like providers

**Compensation and Effort**
- Includes questions from the 2019 IDSA survey, some reconfigured or improved, and new questions that are aimed at capturing a more robust understanding of ID physicians’ compensation and deployment
- Gathers important details regarding what level of effort—across a myriad of activities (clinical and nonclinical)—constitutes being a full-time ID physician
- Asks questions related to the structure of physicians’ employment arrangements and compensation
- Takes a deep dive into incentive-based compensation (e.g., clinical production and quality)

**Administrative Roles**
- Asks new questions that will provide never-before captured data on the expansive administrative activities that ID physicians are providing
- Allows ID physicians to document formal and informal, compensated and uncompensated administrative roles
By administering a supplemental survey to a targeted IDSA population, we can create a more nuanced and accurate picture of provider effort and how that effort is recognized and compensated. This will allow us to create more prescriptive negotiation playbooks and education materials to be distributed later this year.

Case Study (Dr. Jane Doe)

Through traditional benchmarks and the IDSA survey, we know that Dr. Doe:

- Is a full-time ID physician employed by a large hospital/health system.
- Earns 90% of her compensation from clinical activities and 10% of her compensation from administrative activities.
- Benchmarks at the 50th percentile in both compensation and productivity (WRVUs).

What we wouldn’t know from past surveys, but can understand with more robust data:

- That she works 2,500 total annual hours (2,000 hours seeing patients and 500 hours as an administrator)
  - That compared to her peers, who work on average 2,000 hours per year, her total deployment is 1.25 FTE.
  - That, of her administrative effort, 100 hours per year is neither paid nor formally recognized in her contract.

What we can learn through key informant interviews:

- Benchmarks: More accurate benchmarks that account for true provider deployment, not formal deployment.
- Physicians: Novel negotiation tactics for addressing uncompensated or under compensated effort.
- Administrators: What information is needed to entertain new or elevated compensation or recognition of informal nonclinical work?

Better description of what an ID FTE means as well as what effort is not compensated will allow us to focus subsequent interviews
## Compensation Task Force
**Key informant interviews**

<table>
<thead>
<tr>
<th>Physicians</th>
<th>Administrators</th>
<th>Payers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private practice</td>
<td>CEO</td>
<td>President</td>
</tr>
<tr>
<td>University/Med Schools</td>
<td>President</td>
<td>Managers</td>
</tr>
<tr>
<td>Health System</td>
<td>Chairs</td>
<td>Network management</td>
</tr>
</tbody>
</table>

### Compensation Negotiation Interviews

**Goal**
To explore barriers, facilitators, and novel approaches to increasing physician compensation

**Interviewees**
- Physicians and administrators employed at AMCs, hospitals, and private practices
- Individuals who should be directly involved in the negotiations and preferably should be physicians who excel at compensation negotiations

**Topics**
- Interviews will focus on the current various components of physician compensation and associated metrics.
- Some questions will be related to the current process for negotiations.

### Value-Based Contracting Interviews

**Goal**
To determine perceptions of key considerations when establishing reimbursement rates and compensation structures for ID physicians

**Interviewees**
- Physicians and administrators employed at AMCs, hospitals, and private practices
- Physicians, administrators, and payers with direct knowledge of current value-based contracts

**Topics**
- Interviews will focus on:
  - Current activities and practices related to value-based contracts.
  - Process and metrics used for negotiating value-based contracts.
  - Considerations for establishing reimbursement rates.
IDSA WEBSITE:

The *Compensation* page within the *Clinical Practice* drop-down menu summarizes the project background, work plan and serves as a home page for IDSA members to understand and follow our progress.

PROGRESS DASHBOARD:

The initiative’s landing page will provide regular updates, key findings and links to final deliverables for easy access for IDSA members.

VALUE OF ID WEBSITE:

This work will be linked and/or mirrored on the *Value of ID* website to provide high level visibility.
IDSA Compensation & Value Task Force Update | May 2021

**2021 ID Physician Compensation Survey**

2021 survey to better understand how hard ID physicians are working and how they are compensated.

**ID Physician Compensation Initiative**

IDSA initiative to increase ID physician compensation and to align compensation with market best practices.

**Additional Compensation Tools**

- **What ID Physicians Are Paid**
  - Resources on compensation data available to IDSA members.

- **Negotiation Skills Resources**
  - Resources available to IDSA members on gain-sharing, co-management, and other contracting resources.

- **Fair Market Value Resources**
  - Resources available to IDSA members on negotiating strategies to maximize reimbursements and fair market compensation.
Recognize the changes in the health care system (providers taking greater risk)

Risk is migrating from the payer to the health care system and now to the providers

We need to leverage the body of literature that supports the Value of ID Physicians in patient care

Look to negotiate your value to the greater health care system as a physician leader

As our health care system moves in a more “Value-based” payment model where providers are taking on more financial risk, we need to be all the more aware of compensation trends and ever more prepared to effectively negotiate.
Between the IDSA and national surveys, a broad and representative collection of information is available on physician compensation. However, given the complexity and variability of ID roles, additional targeted information is needed to better align compensation with the full breadth of provider effort, especially regarding non-patient facing activities.

As an initial step, IDSA is administering a targeted survey among ID physicians to create a more nuanced and accurate picture of provider effort and how that effort is recognized and compensated. The survey will collect data across three main phenotypes and sub-phenotypes of ID physicians to draw correlational conclusions among work setting, effort/deployment, production and compensation.
These correlational relationships and data points will directly inform prescriptive education materials and negotiation tools that will be distributed to IDSA members later this year to enable more effective self-advocacy for fair compensation and recognition of the value ID physicians bring to health care.

In parallel, the Task Force will be conducting a series of key informant interviews with physicians, administrators and payers to explore barriers, facilitators, and novel approaches to increasing physician compensation, and to determine perceptions of key considerations when establishing reimbursement rates and compensation structures for ID physicians.
Clinical and system value of ID Physicians is well-established in the peer-reviewed literature.

The COVID-19 pandemic has clearly demonstrated ID Physician value as leaders in the response to the pandemic at the clinical, hospital, local and national level.

Reimbursement for clinical work is improving with less unnecessary documentation requirements, yet the fee-for-service system is inherently skewed towards procedural-based specialties.

Healthcare in America is moving towards payment for value-based and system metrics that ID Physicians are uniquely trained to address and lead efforts to improve.

The ID Physician Compensation Initiative and Task Force aims to provide IDSA members with the evidence and tools to benefit from the transition to value.
Survey takes 10 – 20 minutes and will be open through May 24