The TECH-SAVVY PHYSICIAN
Can health IT make practicing medicine easier?
**DON’T GUESS. SEE THE OUT-OF-POCKET COST FOR YOURSELF.**

THE AVERAGE OUT-OF-POCKET COST FOR COMMERCIALLY INSURED PATIENTS IS USUALLY LESS THAN $5 PER DOSE

**SHINGRIX**
(ZOSTER VACCINE RECOMBINANT, ADJUVANTED)

**Indication**
SHINGRIX is a vaccine indicated for prevention of herpes zoster (shingles) in adults aged 50 years and older. SHINGRIX is not indicated for prevention of primary varicella infection (chickenpox).

**Important Safety Information**
- SHINGRIX is contraindicated in anyone with a history of a severe allergic reaction (eg, anaphylaxis) to any component of the vaccine or after a previous dose of SHINGRIX
- Review immunization history for possible vaccine sensitivity and previous vaccination-related adverse reactions. Appropriate medical treatment and supervision must be available to manage possible anaphylactic reactions following administration of SHINGRIX
- In a postmarketing observational study, an increased risk of Guillain–Barré syndrome was observed during the 42 days following vaccination with SHINGRIX
- Syncope (fainting) can be associated with the administration of injectable vaccines, including SHINGRIX. Procedures should be in place to avoid falling injury and to restore cerebral perfusion following syncope
- Solicited local adverse reactions reported in individuals aged 50 years and older were pain (78%), redness (38%), and swelling (26%)
- Solicited general adverse reactions reported in individuals aged 50 years and older were myalgia (45%), fatigue (45%), headache (38%), shivering (27%), fever (21%), and gastrointestinal symptoms (17%)

*Average out-of-pocket cost for commercially insured patients.*

*5 DOLLARS *

$LESS THAN*
When it comes to vaccine costs, the perception doesn’t always match the reality. **So, it might surprise you to find out that, for most commercial plans, the out-of-pocket cost is usually less than $5 per dose.**¹ That’s why it’s so important to check the coverage for each commercial patient.

90% of privately insured patients pay no or limited out-of-pocket cost with the average cost being less than $5 per dose¹

The Affordable Care Act (ACA) requires all Health Insurance Marketplace plans and most other private health insurance plans to cover all Advisory Committee on Immunization Practices (ACIP)-recommended vaccines, including SHINGRIX, with no cost sharing (deductibles, copayments or coinsurance) if administered in-network.²³

**What you need to know:**
Coverage, coding, cost to patient, reimbursement amount for product, and administration fee will vary by payer, plan, patient, professional setting, or services rendered and are subject to change without notice. Cost to patients may vary. Coverage and reimbursement decisions are made by individual payers following receipt of claims from providers. Providers must follow payer documentation and billing requirements.

**Important Safety Information (cont’d)**
- The data are insufficient to establish if there is vaccine-associated risk with SHINGRIX in pregnant women
- It is not known whether SHINGRIX is excreted in human milk. Data are not available to assess the effects of SHINGRIX on the breastfed infant or on milk production/excretion
- Vaccination with SHINGRIX may not result in protection of all vaccine recipients


You are encouraged to report vaccine adverse events to the US Department of Health and Human Services. Visit www.vaers.hhs.gov to file a report, or call 1-800-822-7967.

**Please see Brief Summary of Prescribing Information for SHINGRIX on the following pages.**

Now that you’ve seen the cost, see who you should vaccinate at ProfilesSHINGRIX.com

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SGX:RNA210095 October 2021
Produced in USA.
SHINGRIX (Zoster Vaccine Recombinant, Adjuvanted)

The following is a brief summary only; see full prescribing information for complete product information.

1 INDICATIONS AND USAGE

SHINGRIX is a vaccine indicated for prevention of herpes zoster (HZ) (shingles) in adults aged 50 years and older.

Limitations of Use:
• SHINGRIX is not indicated for prevention of primary varicella infection (chickenpox).

2 DOSAGE AND ADMINISTRATION

2.2 Administration Instructions

For intramuscular injection only.

After reconstitution, administer SHINGRIX immediately or store refrigerated between 2° and 8°C (36° and 46°F) and use within 6 hours. Discard reconstituted vaccine if not used within 6 hours.

2.3 Dose and Schedule

Two doses (0.5 mL each) administered intramuscularly according to the following schedule:
• A first dose at Month 0 followed by a second dose administered 2 to 6 months later.

4 CONTRAINDICATIONS

Do not administer SHINGRIX to anyone with a history of a severe allergic reaction (e.g., anaphylaxis) to any component of the vaccine or after a previous dose of SHINGRIX.[see Description (11) of full prescribing information].

5 WARNINGS AND PRECAUTIONS

5.1 Preventing and Managing Allergic Vaccine Reactions

Prior to administration, the healthcare provider should review the immunization history for possible vaccine sensitivity and previous vaccination-related adverse reactions. Appropriate medical treatment and supervision must be available to manage possible anaphylactic reactions following administration of SHINGRIX.

5.2 Guillain-Barré Syndrome (GBS)

In a postmarketing observational study, an increased risk of GBS was observed during the 42 days following vaccination with SHINGRIX[see Adverse Reactions (6.2)].

5.3 Syncope

Syncope (fainting) can be associated with the administration of injectable vaccines, including SHINGRIX. Syncope can be accompanied by transient neurological signs such as visual disturbance, paresthesia, and tonic-clonic limb movements. Procedures should be in place to avoid falling injury and to restore cerebral perfusion following syncope.

6 ADVERSE REACTIONS

6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a vaccine cannot be directly compared with rates in the clinical trials of another vaccine and may not reflect the rates observed in practice. There is the possibility that broad use of SHINGRIX could reveal adverse reactions not observed in clinical trials.

Adults Aged 50 Years and Older

Overall, 17,041 adults aged 50 years and older received at least 1 dose of SHINGRIX in 17 clinical studies.

The safety of SHINGRIX was evaluated by pooling data from 2 placebo-controlled clinical studies (Studies 1 and 2) involving 29,305 subjects aged 50 years and older who received at least 1 dose of SHINGRIX (n = 14,645) or saline placebo (n = 14,660) administered according to a 0- and 2-month schedule. At the time of vaccination, the mean age of the population was 69 years; 7,286 (25%) subjects were aged 50 to 59 years, 4,488 (15%) subjects were aged 60 to 69 years, and 17,531 (60%) subjects were aged 70 years and older. Both studies were conducted in North America, Latin America, Europe, Asia, and Australia. In the overall population, the majority of subjects were White (74%), followed by Asian (18%), Black (1.4%), and other racial/ethnic groups (6%); 58% were female.

Solicited Adverse Reactions: In Studies 1 and 2, data on solicited local and general adverse reactions were collected using standardized diary cards for 7 days following each vaccine dose or placebo (i.e., day of vaccination and the next 6 days) in a subset of subjects (n = 4,886 receiving SHINGRIX, n = 4,881 receiving placebo with at least 1 documented dose). Across both studies, the percentages of subjects aged 50 years and older reporting each solicited local and general adverse reaction following administration of SHINGRIX (both doses combined) were pain (78%), redness (79%), swelling (26%), itching, and myalgia (45%), fatigue (45%), headache (38%), shivering (27%), fever (21%), and gastrointestinal symptoms (17%).

The reported frequencies of specific solicited local adverse reactions and general adverse reactions (overall per subject), by age group, from the 2 studies are presented in Table 1.

Table 1. Percentage of Subjects with Solicited Local and General Adverse Reactions within 7 Days of Vaccination in Adults Aged 50 to 59 Years, 60 to 69 Years, and 70 Years and Older (Total Vaccinated Cohort with 7-Day Diary Card)

<table>
<thead>
<tr>
<th>Adverse Reactions</th>
<th>Aged 50-59 Years</th>
<th>Aged 60-69 Years</th>
<th>Aged ≥70 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SHINGRIX</td>
<td>Placebo</td>
<td>SHINGRIX</td>
</tr>
<tr>
<td>Local Adverse Reactions</td>
<td>n=1,315</td>
<td>n=1,312</td>
<td>n=1,311</td>
</tr>
<tr>
<td>Pain</td>
<td>88</td>
<td>14</td>
<td>83</td>
</tr>
<tr>
<td>Pain, Grade 3a</td>
<td>10</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Redness</td>
<td>39</td>
<td>1</td>
<td>38</td>
</tr>
<tr>
<td>Swelling, &gt;100 mm</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>General Adverse Reactions</td>
<td>n=1,315</td>
<td>n=1,312</td>
<td>n=1,305</td>
</tr>
<tr>
<td>Myalgia</td>
<td>57</td>
<td>15</td>
<td>49</td>
</tr>
<tr>
<td>Myalgia, Grade 3a</td>
<td>9</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Fatigue</td>
<td>57</td>
<td>20</td>
<td>46</td>
</tr>
<tr>
<td>Fatigue, Grade 3a</td>
<td>9</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Headache</td>
<td>51</td>
<td>22</td>
<td>40</td>
</tr>
<tr>
<td>Headache, Grade 3a</td>
<td>6</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Shivering</td>
<td>36</td>
<td>7</td>
<td>30</td>
</tr>
<tr>
<td>Shivering, Grade 3a</td>
<td>7</td>
<td>0.2</td>
<td>5</td>
</tr>
<tr>
<td>Fever</td>
<td>28</td>
<td>3</td>
<td>24</td>
</tr>
<tr>
<td>Fever, Grade 3a</td>
<td>0.4</td>
<td>0.2</td>
<td>1</td>
</tr>
<tr>
<td>GI, Grade 3a</td>
<td>24</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>GI</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Total vaccinated cohort for safety included all subjects with at least 1 documented dose (n).

7 Days included day of vaccination and the subsequent 6 days.

Data for subjects aged 50 to 59 years and 60 to 69 years are based on Study 1, Data for subjects 70 years and older are based on pooled data from Study 1: NCT01165177 and Study 2: NCT01165229.

Placebo was a saline solution.

Grade 3 pain: Defined as significant pain at rest; prevents normal everyday activities.

Grade 3 myalgia, fatigue, headache, shivering, and GI: Defined as preventing normal activity.

Fever defined as >37.5°C/99.5°F for oral, axillary, or tympanic route, or >38°C/100.4°F for rectal route; Grade 3 fever defined as >39.0°C/102.2°F.

GI = Gastrointestinal symptoms including nausea, vomiting, diarrhea, and/or abdominal pain.

The incidence of solicited local and general reactions was lower in subjects aged 70 years and older compared with those aged 50 to 69 years.

The local and general adverse reactions seen with SHINGRIX had a median duration of 2 to 3 days.

(continued on next page)
The association between vaccination with SHINGRIX and HBOC was evaluated among Medicare beneficiaries aged 65 years or older. Using Medicare claims data, from October 2017 through February 2020, vaccinations with SHINGRIX among beneficiaries were identified through National Drug Codes, and potential cases of hospitalized HBOCs among recipients of SHINGRIX were identified through International Classification of Diseases codes.

The risk of HBOC following vaccination with SHINGRIX was assessed in self-controlled case series analyses using a risk window of 1 to 42 days post-vaccination and a control window of 43 to 183 days post-vaccination. The primary analysis (claims-based, all doses) found an increased risk of HBOC during the 42 days following vaccination with SHINGRIX, with an estimated 3 excess cases of HBOC per million doses administered to adults aged 65 years or older. In secondary analyses, an increased risk of HBOC was observed during the 42 days following the first dose of SHINGRIX, with an estimated 6 excess cases of HBOC per million doses administered to adults aged 65 years or older, and no increased risk of HBOC was observed following the second dose of SHINGRIX. These analyses of HBOC diagnoses in claims data were supported by analyses of HBOC cases confirmed by medical record review. The results of this observational study suggest a causal association of HBOC with SHINGRIX, available evidence is insufficient to establish a causal relationship.

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

The data are insufficient to establish if there is vaccine-associated risk with SHINGRIX in pregnant women [see Use in Specific Populations (8.1) of full prescribing information].

8.2 Lactation

Risk Summary

It is not known whether SHINGRIX is excreted in human milk. Data are not available to assess the effects of SHINGRIX on the breastfed infant or on milk production/excretion [see Use in Specific Populations (8.2) of full prescribing information].

8.5 Geriatric Use

Adults Aged 60 Years and Older

Of the total number of subjects who received at least 1 dose of SHINGRIX in Studies 1 and 2 (n = 14,645), 2,243 (15%) were aged 60 to 69 years, 6,837 (47%) were aged 70 to 79 years, and 1,921 (13%) were 80 years and older. There were no clinically meaningful differences in efficacy across the age groups [see Clinical Studies (14.1, 14.2, 14.3) of full prescribing information].

The frequencies of solicited local and general adverse reactions in subjects aged 70 years and older were lower than in younger adults (aged 50 through 69 years). [See Adverse Reactions (6.1).]

17 PATIENT COUNSELING INFORMATION

- Inform patients of the potential benefits and risks of immunization with SHINGRIX and of the importance of completing the 2-dose immunization series according to the schedule.
- Inform patients about the potential for adverse reactions that have been temporally associated with administration of SHINGRIX.
- Provide the Vaccine Information Statements, which are available free of charge at the Centers for Disease Control and Prevention (CDC) website (www.cdc.gov/vaccines).

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Let’s be honest: Health technology has not always been kind to physicians. There have been lots of promises, many of them broken. Health IT will offer greater efficiencies and boost revenue. It will help reduce administrative burdens in the practice and provide better care to patients.

Physicians who have been practicing for a while know all these promises. There was the push for electronic health record implementation and the “meaningful use” money practices got for adopting the systems. Then, it turned out, many of the systems didn’t do what physicians needed them to do, and only made clinical work more difficult. And switching to a different system was a hassle that could disable a practice and rack up a hefty bill.

Policy makers have for decades talked about the dream of interoperability, that medical records will be able to flow seamlessly from practices to hospitals and back again, so that physicians will be able to keep track of a patient’s entire care journey. But while advances have been made when it comes to interoperability, I don’t think any clinician would say it’s where it needs to be. Some physicians still send faxes.

In summary, health IT has been more than a burden than a solution, and that’s putting it kindly. Yes, here comes the “but.”

But despite the issues, the health care world we live in today requires a vast amount of technical literacy. The COVID-19 pandemic is a perfect example. Patient care was largely saved by telehealth.

“Practicing medicine today requires a higher degree of technical literacy than ever before, and the challenges of the pandemic have only reinforced and accelerated that trend,” wrote Veronica Diaz, M.D., in a 2021 opinion piece for Medical Economics®. “We have reached an inflection point in the industry where clinical expertise is not the only prerequisite for a successful career. Physicians who familiarize, vet, and incorporate new technology into their practices will likely be in the best position to deliver optimal care.”

In this issue, our content mostly focuses on technology, and the various ways it affects doctors’ daily lives and overall careers. Read with an open mind and use it to start thinking about how you can become a more tech-savvy physician.

Mike Hennessy Jr.
President and CEO
of MJH Life Sciences®
March 2022
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COVID-19 COVERAGE CENTRAL

Medical Economics® editors are covering what you need to know during the ongoing novel coronavirus (COVID-19) pandemic. Our ongoing coverage of COVID-19 features:

- Breaking news on the latest developments.
- Tips for physicians to extend the life of N95 respirators.
- Mental health tips for doctors and other providers.
- How physicians can protect themselves from COVID-19.
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Perfect your telehealth program

Tabassum Salam, M.D., the ACP’s vice president of medical education, discusses what physicians need to know to get started with telehealth right away.

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In managing their portfolios, many individual investors—and some advisers—commit blunders because they accept investing myths. Busy physicians may be especially vulnerable because they lack time to question or investigate assumptions.

These myths thrive from repetition and ready adoption. Constantly repeated in financial media, they become ingrained in investing culture.

Here are some common myths and reasons to reject them:

**Market highs are the same as market tops.**
A market top is the point where the market reverses its upward climb and heads downward to a correction or bear market. By contrast, a market high is when major indexes ascend to an unprecedented point.

If people are astonished at new highs, they're astonished a lot, as new highs occur frequently. The S&P 500 index has hit new highs in 62% of all years since 1954, with a per-year median of 11. In 2021, the second best of all market ascendance years, it reached a new high 70 times.

**Inflation damages stock returns.**
Historically, this just hasn't been true. Over the last 50 years, stocks have been the best hedge against inflation 75% of the time. Since 1973, over various two-year periods after inflation readings of 5% and under (a level that's likely for much of this year), the S&P 500 has delivered returns ranging from 17% to more than 23%. Real estate investment trusts (REITs) have also done quite well during such periods because these landlord companies can just raise rents with inflation.

**Dollar-cost averaging produces better results than lump sum investing.**
Dollar-cost averaging (DCA) — buying incremental amounts of an investment gradually over time — is a popular strategy. Although DCA helps with investing discipline in some ways, it rarely produces better returns than lump sum investing. The problem is that investors using DCA tend to buy shares at higher prices. Results of a recent study by The Northwestern Mutual Life Insurance Company show the superiority of the lump sum method. The findings showed that since 1950, lump sum investing has outperformed DCA in equity portfolios 75% of the time. For portfolios of 60% stocks and 40% bonds, the rate was 80%.

**Dividend reinvestment programs (DRIPs) are beneficial.**
This is when you tell your brokerage to automatically reinvest dividends, buying more shares of the same stock indefinitely. Brokers make this choice easy; all you need do is check a box. DRIPs are a mindless way to invest because purchases are automatic rather than price dependent. So you could be unwittingly buying more shares at an unreasonable price.

And when you give the dividend back to the issuing company, it’s like saying, “You know what to do with this money better than I do,” though this really might not be the case. You might be better off investing these dividends elsewhere.

**Options always add risk to a portfolio.**
Market volatility is generally viewed as synonymous with risk, but the two are quite different. Options can harness stock volatility for gain while reducing risk over the long term. Professional investors use options in tandem with major indexes in programs known as options overlays to seek additional profits from indexes’ movements, both up and down.

**“One common myth is investors should put more and more money into bonds as they get older. For many investors, this decades-old recommendation never made sense. Now, it makes even less.”**

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a 782% gain for the index alone over 26 years.

A more accessible way to harness volatility is to invest in options ETFs, a relatively new financial product that is gaining popularity.

Global diversification reduces risk and increases returns.

I call this “deworsification” because it usually does just the opposite. Except for a handful of years during the Great Recession, U.S. stocks have outperformed internationals every year over the past three decades. A major problem with diversifying globally is that U.S. and international markets are increasingly correlated, rising and falling together. This defeats the purpose of diversification. Other downsides of going global include currency risk and foreign regulation risk.

Economic growth is so great in China that investing there is a must.

To the contrary, growth in China has been eroding rapidly, and heavy-handed regulation by the ruling Communist party is starting to drive multinational companies away. Among other problems, China’s huge, party-controlled real estate sector is roiled by debt. Before these issues developed, there was a lot of U.S. media ballyhoo about how China was on track to overtake the U.S. as the world’s leading economy by 2030. But current trends suggest this probably won’t happen. And even if China were to become numero uno, it probably wouldn’t be on top for long because its previous top of one child per family is projected to irrevocably result in a low working-age population for decades, stunting economic growth. Low birth rate in the U.S. likely won’t have the same effect because high immigration will likely sustain the domestic working-age population.

Investors should put more and more money into bonds as they get older.

For many investors, this decades-old recommendation never made sense. Now it makes even less sense. The main attraction of bonds is their reputation for lower risk than stocks, but this has seldom been true over the long term. Over time, inflation threatens the buying power of bond returns, and rising interest rates erode their value because new bonds then pay more.

The classic yet misguided recommendation for people approaching retirement was to have a portfolio of 60% bonds and 40% stocks. This is now widely regarded as your father’s asset allocation because in recent years, bond price movements have become increasingly correlated with those of stocks, and yields have declined sharply. Bonds have become even more undesirable since 2020, when the Fed cut the federal funds rate, pushing down bond yields. As a result, investors are now losing money on Treasury and investment-grade corporate bonds after inflation. Those seeking income-producing stock alternatives might consider various dividend-paying investments including REITs and other, lesser-known income vehicles.

These are just a few examples of investing myths; there are many others. The only way to immunize yourself against them is to do time-consuming research or, better yet, engage a qualified adviser (you should probably have one anyway). Thus you can distinguish fact from fiction and keep myths from hamstringing your portfolio.

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In the United States, there are, broadly speaking, two foundational types of retirement saving accounts. Various provisions of the tax code set up versions of these two basic types based on other parameters. For instance, employers are typically able to offer their employees 401(k) plans, and most people are familiar with individual retirement accounts (IRAs). Non-profit groups can offer their employees 403(b) accounts. Each of these account types comes in two basic flavors separated by how contributions and withdrawals are treated by the tax code. All these accounts shield the account funds from taxes on capital gains as long as the funds remain in the account.

The first type, and the more traditional one, allows for contributions to be made pretax. This means that making contributions to the account reduces one’s taxable income by the amount of the contribution. When assets are withdrawn during retirement, the withdrawals are taxed as ordinary income and those tax rates apply. Traditional 401(k) and IRA accounts are typical of this type of account.

The second type has contributions coming from after-tax income. Withdrawals are then tax-free. Most people have heard of the Roth IRA, but there are also other types of Roth accounts, such as an employer-sponsored Roth 401(k). For direct contributions, there are income limits on who can contribute. However, one can get money into these types of accounts by first putting cash into the pretax versioned account and then doing a conversion. You just have to pay the taxes on the amount converted.

Which type of account is best from a tax perspective depends very much on the tax rates at the time of contribution versus the tax rates at the time of withdrawal. If you expect your tax rates to be higher when you retire, contributing to the Roth type account is the better option.

It is not quite that easy

Although it sounds fairly easy in theory to determine which account type is better in terms of taxes, in practice it isn’t quite that simple. Several factors make the calculation more complicated.

The first thing that makes this calculation more complicated, is the structure of the U.S. tax code. The first dollar of taxable income isn’t taxed at the same rate as the last for most individuals. Meanwhile, your first dollar of income isn’t always part of taxable income.

Why does this make things more complicated? Because the dollars you contribute to a retirement account are the last dollars earned. If the contribution is pretax, those dollars would have been taxed at your highest marginal rate. But when you make withdrawals, not all of that money is taxed at the highest marginal rate. So even if you have the same top rate in retirement as you did when working, your retirement account withdrawals will likely be taxed at a lower effective rate than your contributions would have been taxed.

The second wrinkle is because the federal government wants to collect its taxes. So although they were willing to delay collecting in order to help people save for retirement, the federal government does want those taxes eventually. Traditional retirement accounts (which have a balance built on pretax contributions) have what are called RMDs (required minimum distributions). These are scheduled so that the retiree will withdraw enough each year to progressively reduce the account balance based on the average life expectancy for their current age. This has the effect of increasing the percentage of the account balance that must be withdrawn each year.

RMDs do not apply to Roth accounts. Since the government already collected taxes on the funds contributed to the Roth accounts, and because the withdrawals are tax-free, the government doesn’t require you to withdraw funds from Roth accounts.

How do RMDs complicate retirement planning? Typically, you set up a withdrawal plan to pull out enough money to cover your expenses. But if you have been very good at saving and have had good returns, you might have a very high portfolio value. At some
point, RMDs may be larger than your total expenses. RMDs can even move you into a higher tax bracket. Although the RMD might not initially be a big deal, it does require planning on what to do with the extra cash. And depending on what you do with the money, these extra withdrawals can push you into a higher tax bracket as well.

And finally, Medicare imposes a surcharge on your premiums if you have taxable income above a certain level. Although the surcharge of $80.40/month at the first threshold might not seem like much, it is an expense that gets you no additional benefits and can be like a slow leak from your assets. The surcharge increases progressively with higher incomes.

**Time to do some math**

For some people, keeping all of their retirement funds in the traditional pretax contribution-type retirement plans will work best. For others, getting everything in the tax-free withdrawal accounts will work best. For many, some combination of the two is what works best. There are a lot of variables in making that determination. Each investor will need to run their specific numbers to find out. However, all of us can learn from working through an example case.

Let’s start with a single retiree, retiring at age 67, who has determined that their retirement budget will result in their AGI (adjusted gross income) being $90,000 a year. This is just below the threshold for incurring the surcharge on Medicare premiums. Let’s further assume the retiree takes the standard deduction ($12,550) and gets a Social Security benefit of $3,000 a month ($36,000 a year). So bottom line, to meet their budgeted expenses they will need to take $71,950 out of their IRA (it can be any of the various pretax contribution retirement accounts, but for simplicity, we will just call it an IRA). Based on the current tax brackets, just over $20,000 of the IRA funds will be taxed at only a 12% rate, while most of the rest will be taxed at a rate of 22%. Only about $4,000 will be taxed at the 24% rate. If before they retired, this person had an AGI of $120,000, it can be seen that the top marginal rates will be the same both before and after retirement, but the effective rate during retirement will be much lower than the rate that would have been charged on earlier contributions to the tax-deferred IRA.

With that $120,000 of AGI before retirement, this person had $44,925 of room before being pushed into the 32% bracket. And now in retirement, they have $74,925 of room. However, they only have $1,000 of room before the Medicare premium surcharge hits (at $91,000 of income for an individual filer).

How much trouble will RMDs give them? This very much depends on how large their portfolio is. Continuing with our example, if they have a portfolio bigger than $1.853 million, then at age 72 RMDs will force them to take out more than needed, enough to trigger that monthly surcharge on Medicare premiums. By the same token, if the portfolio value is smaller than $864,000 then RMDs won’t force withdrawals great enough to trigger that extra Medicare premium until approximately age 90.

**Tax benefits**

Not all stocks reap the same benefits from retirement IRA accounts. When deciding what to hold in a pretax contribution retirement account versus a tax-free withdrawal account, yield and potential for capital gains are two important considerations. Here are just a few general ideas and examples.

**TRADITIONAL IRAS**

Since the traditional retirement accounts have RMDs, you want investments that will pay you a lot of cash and not have big share price appreciation. CEFs tend to pay out most of their total return as distributions, so they are well suited for being in a traditional retirement account.

**ROTH IRAS**

Stocks with a higher likelihood of share price growth and more modest yields work better in Roth retirement accounts because there is never a need to withdraw funds for RMDs (and possibly have to sell shares).

**TAXABLE ACCOUNTS**

Many stocks pay ordinary dividends. These dividends are taxed at ordinary income tax rates. There are tax benefits from holding them in a retirement account either because the dividends will never be taxed or since withdrawals are taxed at ordinary income levels anyway, they do not suffer any disadvantage from being held in a retirement account. Other stocks pay qualified dividends, which are taxed at capital gains rates that are lower than ordinary income rates. Before turning age 72, you can convert funds from your traditional IRA to the Roth IRA and thereby lower future RMDs. Remember, planning ahead can help reduce your tax burden and allow you to enjoy more income overall. Every dollar you save is equal to a dollar you earn.»
$9 FOR A 90-DAY SUPPLY*

For adults on maximally tolerated statins with TG ≥150 mg/dL and established CVD or diabetes and ≥2 CVD risk factors

Add VASCEPA® (icosapent ethyl) to a statin for an additional 25% CV risk reduction

INDICATIONS AND LIMITATIONS OF USE

- VASCEPA® (icosapent ethyl) is indicated as an adjunct to maximally tolerated statin therapy to reduce the risk of myocardial infarction, stroke, coronary revascularization and unstable angina requiring hospitalization in adult patients with elevated triglyceride (TG) levels (≥150 mg/dL) and established cardiovascular disease or diabetes mellitus and 2 or more additional risk factors for cardiovascular disease.
- VASCEPA is indicated as an adjunct to diet to reduce TG levels in adult patients with severe (≥500 mg/dL) hypertriglyceridemia. The effect of VASCEPA on the risk for pancreatitis in patients with severe hypertriglyceridemia has not been determined.

IMPORTANT SAFETY INFORMATION

- VASCEPA is contraindicated in patients with known hypersensitivity (e.g., anaphylactic reaction) to VASCEPA or any of its components.
- VASCEPA was associated with an increased risk (3% vs 2%) of atrial fibrillation or atrial flutter requiring hospitalization in a double-blind, placebo-controlled trial. The incidence of atrial fibrillation was greater in patients with a previous history of atrial fibrillation or atrial flutter.
- It is not known whether patients with allergies to fish and/or shellfish are at an increased risk of an allergic reaction to VASCEPA. Patients with such allergies should discontinue VASCEPA if any reactions occur.

The wholesale price of VASCEPA is $144.22 for 120 1g capsules and $402.73 for 240 0.5g capsules. Commercially insured patients can save with the VASCEPA Savings Card. VASCEPA Savings Card may not be used to obtain prescription drugs paid in part by some Federal or State Programs, or where prohibited by law; see vascepahcp.com for more information. Generic icosapent ethyl capsules available from Hikma Pharmaceuticals do not have an approved indication for cardiovascular risk reduction. Amarin retains exclusivity for cardiovascular risk reduction and the Hikma generic should not be dispensed for this indication.

With the rise of COVID-19 cases nationwide, the Office for Civil Rights (OCR) has temporarily lifted penalties associated with private telehealth communications between healthcare providers and their patients. For additional information, please visit the temporarily updated guidelines at hhs.gov/hipaa.

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GROUNDBREAKING RESULTS
On top of a statin, VASCEPA is proven to reduce the risk of a life-threatening CV event† by an additional 25%.

IRRESPONSE OF TG LEVELS
VASCEPA showed robust CV risk reduction irrespective of achieved TG levels.

AVAILABLE COST SAVINGS
With the VASCEPA Savings Card, commercially insured patients can pay as little as $9 for a 90-day supply. Subject to eligibility. Restrictions apply*

Indicate “Dispense as written (DAW)” or “Brand medically necessary” to help ensure your patients are getting the benefits of VASCEPA

Scan to see plans that only cover VASCEPA.

IMPORTANT SAFETY INFORMATION (cont’d)
• VASCEPA was associated with an increased risk (12% vs 10%) of bleeding in a double-blind, placebo-controlled trial. The incidence of bleeding was greater in patients receiving concomitant antithrombotic medications, such as aspirin, clopidogrel or warfarin.
• Common adverse reactions in the cardiovascular outcomes trial (incidence ≥3% and ≥1% more frequent than placebo): musculoskeletal pain (4% vs 3%), peripheral edema (7% vs 5%), constipation (5% vs 4%), gout (4% vs 3%) and atrial fibrillation (5% vs 4%)
• Common adverse reactions in the hypertriglyceridemia trials (incidence ≥1% more frequent than placebo): arthralgia (2% vs 1%) and oropharyngeal pain (1% vs 0.3%)
• Adverse Events, Product Complaints, or Special Situations may be reported by contacting AmarinConnect at 1-855-VASCEPA, emailing AmarinConnect@AmarinCorp.com, or calling the FDA at 1-800-FDA-1088
• Patients receiving VASCEPA and concomitant anticoagulants and/or anti-platelet agents should be monitored for bleeding

Please see adjacent Brief Summary of full Prescribing Information for VASCEPA or go to www.vascepahcp.com.

*Offer Restrictions: May not be used to obtain prescription drugs paid in part by Federal or State Programs including Medicare, Medicaid, Medicare Advantage, Medicare Part D, Tricare, VA. Most eligible, insured patients will pay as little as $9 of their copay for either each month or a 90 day fill, with a maximum savings of up to $150 per month or $450 on a 90 day fill. Not for use by residents of VT, nor medical professionals licensed in VT. This offer is not valid for those patients under 18 years of age or patients whose plans do not permit use of a copay card. Void where prohibited by law, taxed, or restricted. Eligible patients include those who participate in commercial insurance, through a healthcare exchange, or pay cash. Offer good through December 31, 2021.
†Cardiovascular events including myocardial infarction, stroke, coronary revascularization, and unstable angina requiring hospitalization.

VASCEPA® (icosapent ethyl) capsules, for oral use
Brief Summary of Prescribing Information
Please see Full Prescribing Information for additional information about VASCEPA.

1. INDICATIONS AND USAGE

VASCEPA® (icosapent ethyl) is indicated:

- as an adjunct to maximally tolerated statin therapy to reduce the risk of myocardial infarction, stroke, coronary revascularization, and unstable angina requiring hospitalization in adult patients with elevated triglyceride (TG) levels (>150 mg/dL) and
- established cardiovascular disease or
- diabetes mellitus 2 or more additional risk factors for cardiovascular disease
- as an adjunct to diet to reduce TG levels in adult patients with severe (≥500 mg/dL) hypertriglyceridemia.

2. DOSAGE AND ADMINISTRATION

2.1 Prior to Initiation of VASCEPA

• Assess lipid levels before initiating therapy. Identify other causes (e.g., diabetes mellitus, hypothyroidism, or medications) of high triglyceride levels and manage as appropriate.
• Patients should engage in appropriate nutritional intake and physical activity before receiving VASCEPA, which should continue during treatment with VASCEPA.

2.2 Dosage and Administration

• The daily dose of VASCEPA is 4 grams per day taken as either:
  o four 0.5 gram capsules twice daily with food or
  o two 1 gram capsules twice daily with food.
• Advise patients to swallow VASCEPA capsules whole. Do not break open, crush, dissolve, or chew VASCEPA.

3. DOSAGE FORMS AND STRENGTHS

VASCEPA capsules are supplied as:

- 0.5 gram amber-colored, oval, soft-gelatin capsules imprinted with V500
- 1 gram amber-colored, oval, soft-gelatin capsules imprinted with VASCEPA

4. CONTRAINDICATIONS

VASCEPA is contraindicated in patients with known hypersensitivity (e.g., anaphylactic reaction) to VASCEPA or any of its components.

5. WARNINGS AND PRECAUTIONS

5.1 Atrial Fibrillation/Flutter

VASCEPA is associated with an increased risk of atrial fibrillation or atrial flutter requiring hospitalization. In a double-blind, placebo-controlled trial of 8,179 statin-treated subjects with established cardiovascular disease (CVD) or diabetes plus an additional risk factor for CVD, adjudicated atrial fibrillation or atrial flutter requiring hospitalization for 24 or more hours occurred in 127 (2.7%) patients treated with VASCEPA compared to 84 (2%) patients receiving placebo [HR=1.5 (95% CI 1.14, 1.98)]. The incidence of atrial fibrillation was greater in patients with a previous history of atrial fibrillation or atrial flutter.

5.2 Potential for Allergic Reactions in Patients with Fish Allergy

VASCEPA contains ethyl esters of the omega-3 fatty acid, eicosapentaenoic acid (EPA), obtained from the oil of fish. It is not known whether patients with allergies to fish and/or shellfish are at increased risk of an allergic reaction to VASCEPA. Inform patients with known hypersensitivity to fish and/or shellfish about the potential for allergic reactions to VASCEPA and advise them to discontinue VASCEPA and seek medical attention if any reactions occur.

5.3 Bleeding

VASCEPA is associated with an increased risk of bleeding. In a double-blind, placebo-controlled cardiovascular outcomes trial of 8,179 patients, 462 (12%) patients receiving VASCEPA experienced a bleeding event compared to 404 (11%) patients receiving placebo. Serious bleeding events occurred in 111 (3%) of patients on VASCEPA vs. 85 (2%) of patients receiving placebo. The incidence of bleeding was greater in patients receiving concomitant antithrombotic medications, such as aspirin, clopidogrel, or warfarin.

6. ADVERSE REACTIONS

The following important adverse reactions are described below and elsewhere in the labeling:

Atrial Fibrillation or Atrial Flutter [see Warnings and Precautions (5.1)]
Potential for Allergic Reactions in Patients with Fish Allergy [see Warnings and Precautions (5.2)]
Bleeding [see Warnings and Precautions (5.3)]

6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

Cardiovascular Outcomes Trial

In a double-blind, randomized, placebo-controlled cardiovascular outcomes trial, 8,179 statin-stabilized patients were randomized to receive VASCEPA or placebo and followed for a median of 4.9 years (see Clinical Studies [14.1]). The median age at baseline was 64% was 29% were women, 90% White, 5% Asian, 2% were Black, and 4% identified as Hispanic ethnicity. Common adverse reactions (incidence ≥3% on VASCEPA and ≥1% more frequent than placebo) included musculoskeletal pain, peripheral edema, constipation, gout, and atrial fibrillation.

Hepatobiliary/Gastrointestinal Tract

In two randomized, double-blind, placebo-controlled trials in patients with triglyceride levels between 200 and 2000 mg/dL treated for 12 weeks, adverse reactions reported with VASCEPA at an incidence ≥1% more frequent than placebo based on pooled data included alopecia and anorexia, and paresthesia.

6.2 Postmarketing Experience

Additional adverse reactions have been identified during post-approval use of VASCEPA. Because these reactions are reported voluntarily from a population of uncertain size, it is generally not possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

Diarrhea
Blood triglycerides increased
Abdominal discomfort
Pain in the extremities

7. DRUG INTERACTIONS

7.1 Increased Bleeding Risk with Anticoagulants and Antiplatelet Agents

Some published studies with omega-3 fatty acids have demonstrated prolongation of bleeding time. The prolongation of bleeding time reported in those studies has not exceeded normal limits and did not produce clinically significant bleeding episodes. Monitor patients receiving VASCEPA and concomitant anticoagulants and/or antiplatelet agents for bleeding.

8. USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Risk Summary

The available data from published case reports and the pharmaceutical database on the use of VASCEPA in pregnant women are insufficient to identify a drug-associated risk for major birth defects, miscarriage or adverse maternal or fetal outcomes. In animal reproduction studies in pregnant rats, non-dose-related imbalances for some minor developmental findings were observed in oral administration of icosapent ethyl during organogenesis at exposures that were equivalent to the clinical exposure at the human dose of 4 g/day based on body surface area comparisons. In a study in pregnant rabbits orally administered icosapent ethyl during organogenesis, there were no clinically relevant adverse developmental effects at exposures that were 5 times the clinical exposure, based on body surface area comparisons (see Data).

The estimated background risk of major birth defects and miscarriage for the indicated population is unknown. All pregnancies have a background risk of birth defect, loss, or other adverse outcomes. In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2-4% and 15-20%, respectively.

Data

Animal Data

In pregnant rats given oral dosages of 0.3, 1 and 2 g/kg/day icosapent ethyl from gestation through organogenesis all drug treated groups had non-dose-related imbalances in visceral and skeletal findings, including 13% reduced ribs, additional liver lobes, testes medially displaced and/or not descended, at human systemic exposures following a maximum oral dose of 4 g/day based on body surface comparisons. In a multi-generational developmental study in pregnant rats given doses of 0.3, 1, 3 g/kg/day icosapent ethyl by oral gavage from gestation day 7-17, icosapent ethyl did not affect viability in fetuses (F1, F2, F3). Non-dose-related imbalances in findings of absent optic nerves and unilateral testes atrophy at human exposures based on the maximum dose of 4 g/day and on body surface area comparisons. Additional variations consisting of early incisor eruption and increased percent cervical ribs were observed at the same exposures. Pups from high dose treated dams exhibited decreased copulation rates, delayed estrus, decreased implantations and decreased surviving fetuses. F3 suggesting potential multi-generational effects of icosapent ethyl at 7 times human systemic exposure following 4 g/day dose based on body surface area comparisons across species.

In pregnant rats given icosapent ethyl from gestation day 17 through lactation day 20 at 0.3, 1, 3 g/kg/day no adverse maternal or developmental effects were observed. However, complete litter loss (100% related) was noted in 2/23 litters at the low dose and 1/23 mid-dose dams by post-natal day 4 at human systemic exposures at a maximum dose of 4 g/day, based on body surface area comparisons.

8.2 Lactation

Risk Summary

Published studies have detected omega-3 fatty acids, including EPA, in human milk. Lactating women receiving oral omega-3 fatty acids for supplementation have resulted in higher levels of omega-3 fatty acids in human milk. There are no data on the effects of omega-3 fatty acid ethyl esters on the breastfeeding infant on or milk production. The developmental and health benefits of breastfeeding should be considered along with the mother’s clinical need for VASCEPA and any potential adverse effects on the breastfed child from VASCEPA or from the underlying maternal condition.

8.4 Pediatric Use

Safety and effectiveness in pediatric patients have not been established.

8.5 Geriatric Use

Of the total number of patients in well-controlled clinical studies of VASCEPA, 45% were 65 years of age and over. No overall differences in safety or effectiveness were observed between the elderly and younger groups. Other reported clinical experience has not identified differences in responses between the elderly and younger patients.

8.7 Hepatic Impairment

In patients with hepatic impairment, alanine aminotransferase (ALT) and aspartate aminotransferase (AST) levels should be monitored periodically during therapy with VASCEPA.

17. PATIENT COUNSELING INFORMATION

Advises the patient to read the FDA-approved patient labeling before starting VASCEPA (Patient Information).

Inform patients that VASCEPA may increase their risk for atrial fibrillation or atrial flutter [see Warnings and Precautions (5.1)]. Inform patients to estimate their frequency or establish a causal relationship to drug exposure.

Diarrhea
Blood triglycerides increased
Abdominal discomfort
Pain in the extremities

18. AMARIN

VASCEPA® (icosapent ethyl)

Distributed by:
Amarin Pharma, Inc.
105 Innovation Drive
Wilmington, DE 19880

Manufactured by:
Amarin Pharmaceuticals Ireland Limited
Bridgewater, NJ, USA
Dublin, Ireland

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Despite the documented challenges of technology in medicine, the health care world we live in today requires a vast amount of technical literacy. The COVID-19 pandemic is a perfect example. Patient care was largely saved by telehealth. Those who were not able to use virtual care were left behind. In this issue, our content focuses on health IT’s impact on all parts of running a medical practice, and the various ways it impacts doctors’ daily life and overall careers.

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How AI will transform your practice

by Jordan Rosenfeld Contributing Author

Artificial intelligence (AI) is no longer just the future of medicine—it’s already here, and over time it will transform nearly every area of medical practice, experts say.

AI’s role is not one process, but a collection of them, according to a 2019 article in Future Healthcare Journal. It involves machine learning, where computers get smarter at seeking patterns or connections the more data is input; natural language processing, where computers learn to read and analyze unstructured clinical notes or patient reports; robotic process automation, such as chat bots; diagnostic capabilities such as IBM’s Watson; and even more processes that help with patient adherence and administrative tasks.

“AI is impacting health care at every level, from the provider to the payer to pharma,” says Dan Riskin, M.D., CEO and founder of Verantos, a health care data company in Palo Alto, California, that uses AI to sort through real world evidence.

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“Above all, AI will help us understand the health care ecosystem,” says Athena Robinson, Ph.D., chief clinical officer at Woebot Labs, a digital therapeutics company in San Francisco. “Some folks think of augmented systems, such as transactional bots that you call to schedule an appointment. And sometimes people are just talking about tech leverage solutions, like more seamless integration into an electronic health record (EHR) or prompting a patient for some measurement-based care. There’s a wide variety of ways people think about AI-implemented evolutions of medicine practice.”

AI supports the clinical relationship

For providers, AI can help with tasks ranging from clinical decision support to disease management, Riskin says. However, it might be especially useful to physicians for understanding population health. “If you want to identify a group where you are not meeting the standard of care or need to do better, and you find you’re having trouble identifying [these patients] with common software, you might do better with more innovative, AI-based software,” Riskin says.

Or from a patient-facing approach, AI can assist in disease management for patients with adherence problems. “If you find your patient is struggling with typical approaches ... maybe they will do better with an AI-based tool that partners with them,” Riskin said.

Robinson agrees that AI will be especially helpful in extending the clinical relationship outside the office. “The benefit of an AI through an app on your
smartphone is that it allows for real-time practice to meet the patient where they are,” she says.

For example, patients who can track their sleep patterns or glucose numbers or other health data at home can then share that information with their doctors in real time. “That facilitates both members of the team, both the patient who is not taxed with that kind of memory recall on the spot and the provider who can use the session time a bit more efficiently,” Robinson says.

**Why AI is so effective**

AI will never replace physicians or other providers, but it does have undeniable strengths with which the human brain simply can’t compete. “The main strength of AI in general, not only pertaining to medicine, is its ability to digest large amounts of data to detect patterns and connections between the data points that a human wouldn’t necessarily be very good at doing,” says Theodore Zanos, PhD, head of the Neural and Data Science Lab and an assistant professor at the Feinstein Institutes for Medical Research at Northwell Health in Manhasset, New York.

AI can also make connections much more quickly than a human doctor, reading and interpreting hundreds of thousands of pages of medical records — and it’s only going to get better at it. This function has been a boon during the COVID-19 pandemic when tracking and monitoring patients’ health in real time have become crucial.

“These diagnostic models and prognostic models are trying to predict what’s going to happen to the patient based on their clinical profile now, but also [they are] comparing them with millions of other patients [who] might have had similar characteristics,” Zanos says.

For those who are concerned that patients might not trust AI, Riskin says it’s not an either/or situation. “Doctors still have to figure out what is believable and make the choice for all their patients. I wouldn’t trust something more or less if a human told me or an AI told me; I would judge it based on the quality of what it’s telling me.”

**AI supports precision/personalized medicine**

At the moment there is no unifying model that can predict all diseases and conditions. But “there are a lot of specific (AI-based) models for specific diseases and conditions and time horizons and use cases,” Zanos says.

However, because of AI’s computing power, it lends a significant hand to personalized medicine now and into the future. “The FDA just came out with draft guidance saying that traditional methods get you an accuracy of 40% to 50%, which is insufficient, and AI gets you accuracy of 80% to 85%, which is sufficient,” Riskin says.

Unfortunately, there are no ratings for these models yet, so doctors have to apply trial and error to see which ones work best, and they will need to practice using them.

“If you have very good tools to identify and diagnose at an individual level and then use AI to find the optimal treatment for the diagnosis, that’s kind of the holy grail of how we would use AI,” Zanos says.

Another factor to consider when adopting AI-based interfaces, programs and apps, Riskin says, is that younger patients have come to expect more contactless health care experiences. “They are more comfortable with an app or telemedicine, or if they are managing a condition, sensors and an app that on a daily basis will tell them how they are doing.”

**The stakes are higher**

Of course, no practice is going to simply shift everything to AI-based programs overnight, Zanos says. “The stakes are just a lot higher in health care. In other industries, it’s fine if you suggest the wrong product to a user or the wrong movie on Netflix — it’s not going to break your company. But you can’t just release a tool in the wild in health care. It needs to go through careful validation, approval and regulatory approval from the FDA, so the cycle is longer and it slows down the progress a bit in the field.”

**Choosing the right AI for your practice**

Once physicians have an idea of how they’d like to use AI in their practice, there will be some tough decisions to make, Riskin says. “The first decision for the doctor is going to be: Do I want to stay with the tried-and-true, slower, large vendor or do I want to take a risk and go with a startup that’s more innovative?” he said.

He suggests sticking with legacy vendors for things such as EHRs and considering more innovative AI-based startups for things such as revenue cycle management or less patient-centric tasks.

Zanos reminds physicians that AI is an emerging field, but it is one that’s here to stay. “There are going to be growing pains. If doctors are really serious about these technologies, it’s important to educate themselves more than just, ‘Oh there’s an algorithm on my computer that’s going to tell me everything I need to know.’ There’s value in understanding how these technologies are created,” he said. “Physicians need as much exposure and practice as they can get.”
**Why text messaging is good business for your practice**

Text messaging is a proven way to quickly reach and successfully engage with patients and their caregivers, staff and other stakeholders. Such engagement has significant value on a clinical level.

Health care organizations can use texting to share pre-appointment requirements and safety policies, ensure patients show up to appointments, drive campaigns for recommended services that help keep them well (e.g., colonoscopies, mammograms, vaccinations), coordinate safe discharge with caretakers and more.

On the staffing side, texting can help fill scheduling gaps, keep staff informed about evolving safety policies and provide supportive messages and information on services to help with staff morale and mental wellness. Organizations also are finding text messaging strengthens their bottom line, which is particularly important at a time when supply, staffing and other costs are on the rise and reimbursement is tightening.

Here are eight ways texting can improve health care revenue and decrease costs.

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**1. Increase patient volume**

Use texting to encourage patients to schedule services such as annual physicals or wellness visits; surgical procedures postponed due to COVID-19; and routine services such as laboratory tests, imaging, rehabilitation and physical therapy. Increased patient volume translates to increased billing opportunities.

**2. Support telehealth programs**

Text messaging is becoming an integral component of new and/or growing telehealth programs, including for the initiation of telehealth consultations. Organizations can send messages with hyperlinks that, when selected by the patient, start the appointment. Texting can also be used to inform patients about the availability of telehealth services and how to schedule telehealth appointments.

**3. Reduce cancellations, no-shows and no-goes**

Missed appointments cost the U.S. health care system billions of dollars each year. A missed appointment means a patient is not only failing to receive the care they need, but the organization may end up with unused scheduling capacity. This translates to a missed billing opportunity and staffing costs not offset by billable services.

Texting patients reduces cancellations, no-shows and no-goes. Prior to an appointment, organizations can send a message that reminds patients about their scheduled treatment. The text can include information about required preparation for the treatment (e.g., fasting), safety policies, a phone number if patients have questions and directions to the organization.

If a text message is sent far enough in advance asking patients to confirm their appointment, an organization may have time to fill an opening if a patient indicates they want to reschedule.

**4. Boost collections**

Texting may be one of the simplest ways to enhance an organization’s revenue cycle management and performance. Organizations can send texts reminding patients of their payment responsibility — either upcoming or overdue — and the way they can pay for their care. The text can include a link to an online bill pay website if the organization offers such a payment mechanism. This approach is familiar to most people since many other industries already use texting for payment prompts.

Since patients often have questions about their balance and payment method options, the patient reminder text can include language encouraging patients to call a hyperlinked phone number and the appropriate hours to call to have questions or concerns addressed.

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**SPECIAL REPORT**

**PRACTICAL MATTERS / PRACTICE MANAGEMENT**

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**5. Verify coverage and benefits**

For staff members tasked with outbound insurance verification often discover, reaching patients is not only time-consuming but often
unsuccessful. This is a growing issue. A survey by Truecaller found nearly 90% of Americans will answer calls only if they know who is calling. Meanwhile, voicemails are increasingly ignored.

Organizations can text patients informing them that a staff member must verify their insurance and benefits and then request patients call the organization. This is a game-changer for staff and their workflow, as it helps expedite the verification process — better ensuring that appointments can proceed and successful billing will occur — while freeing up extensive time and energy previously spent making repeated calls and leaving voicemails.

6 Improve online reputation
Online reputation is more important than ever for an organization’s success. A patient survey conducted by RepuGen found “more than 95% of the patient population consider online reviews to be an important aspect of their decision-making process, with 40% of them refusing to visit providers with poor reviews.”

A positive reputation can help an organization better attract patients, receive more referrals, promote new services and improve staff recruitment. Text messages can be sent that survey patients about their treatment experience. For those who respond positively, follow-up messages can encourage patients to publish an online review and include links to websites where the organization maintains a profile (e.g., Google, Facebook, Yelp). Messages can also request testimonials that can be published and shared.

Furthermore, texting is an effective way to learn about unsatisfied patients. For patients who respond to a text survey indicating they had a negative experience, a follow-up message can ask them to identify what they found disappointing and/or ask if they would like to speak with an organization representative about their experience. The information may help an organization improve its operations and decrease the likelihood that future patients will have a similar experience. In addition, showing a genuine interest in hearing about a patient’s experience can help reduce the likelihood the patient will leave a negative online review.

7 Avoid readmission penalties
So far, we’ve highlighted ways to increase the bottom line. What about ways to avoid decreasing it? We recently learned that Medicare is punishing nearly 2,500 hospitals for high readmissions. Texting can help organizations keep their readmission rates low and reduce the likelihood that they will suffer penalties.

Following discharge, text messages can be sent to patients reminding them about discharge instructions they should follow, explaining what to do if they have questions about instructions, asking if they are experiencing any discomfort and identifying what to do if they are in pain. Similar messages can be sent to caregivers to better help with patient support and compliance.

8 Optimize staffing and productivity
An indirect way texting improves the bottom line is through enhancing aspects of staffing. Texts can help organizations maintain an optimal schedule, limiting the need for extensive overtime and staff. Text messaging also dramatically reduces the number of phone calls staff must make and receive. The time saved on these calls can allow an organization to assign other tasks to staff who would normally be making these calls, which helps clinical and/or financial performance.

Bottom line: Texting makes a lot of sense (and cents)
Texting is a practical solution that can deliver organization-wide improvements, including to the bottom line. For most organizations, adding and leveraging texting as a communication mechanism is simple and fast, with a smooth learning curve and easy integration with existing systems that store patient data. Text messaging solutions are increasingly cloud-based, so organizations will not need to purchase new computers or hardware, keeping costs at a minimum. Organizations that add texting may quickly find that it’s the clinical, operational and financial tool they didn’t know they were missing.

Brandon Daniell is president and co-founder of Dialog Health, a cloud-based, two-way texting platform that enables information to be pushed to and received from patients and caregivers. Send your practice management questions to medec@mjlifesciences.com.
Evaluating tech

Don’t buy until you try: How tell whether the ‘next big thing’ is right for your practice

by Keith Loria Contributing Author

Staying up-to-date is important for any medical practice, but it’s not practical to constantly buy and implement the latest and greatest technology. Practices need to know what will make the biggest impact and offer a significant advantage for patients.

One of the best ways to know whether new technology is the right choice for a practice is to research it, whether it’s asking trusted colleagues for their opinion or reading the literature published about the equipment.

Clifford Gluck, M.D., FCAS, who owns a urology practice in Hingham, Massachusetts, is frequently presented with the “next big thing” in tech. But he has found that most technology is oversold and that sales associates often significantly exaggerate the benefits.

“One has to be very careful about purchasing any kind of technology — especially ones that the patient will pay cash out of their pocket for,” he says. “That’s why it’s important to get the experience of others who have used the technology and to look at the literature to see what there is in terms of scientific evidence.”

Rafael A. Lugo, M.D., a general surgery specialist in The Woodlands, Texas, agrees that not everything new is best.

“It’s a tough decision each practice has to make on a personal level,” he says. “The best method is to evaluate current work flows and then see where the new tech fits in and how it will help the business or improve patient care.”

From there, he notes, consider the return on investment, which ultimately will become a driving force of almost any new technology.

“If we buy new tech just to be modern, then we are wasting the money,” Lugo says. “I think it is important to have clear goals in any expense made for the practice. Overhead is the biggest drain for a practice and if the new tech will not make a difference, then it’s often best to wait.”

Making a decision

Practices should never jump into something quickly, as tech can be expensive and it’s something they may be stuck using for years even if something better comes along.

“Testing the product on a small scale is crucial,” says Ewa Matuszewski, CEO of MedNetOne Health Solutions in Rochester, Michigan. “Purchase one or two licenses or ask the vendor for a testing period. Never purchase group licenses until the user has had the opportunity to see if the product fits the needs of the practice.”

Another great tip is to look at the response time of the customer relations department, she says. If a physician can’t get an issue resolved in a few days and the vendor doesn’t follow up, it may be a good reason to reconsider purchasing the product/licenses.

David Berg, president and co-founder of Redirect Health, notes practices need new technology to stay competitive. This increases the efficiency and effectiveness of the workforce, and it also reduces the cost of hiring new workers to do what the technology can do instead.

When choosing technology, Berg says, “you don’t want to put too much weight on the importance of
reviews from other practices unless they are ones you personally know or trust. Building a network that you do trust is an important step for a practice and an effective way to get reliable reviews on new technology you may be considering.”

Attending seminars that demonstrate a new type of technology can be helpful, as well as watching videos about the product and reading the studies that were performed.

“Also important is its ease of use and implementation into practice,” Gluck said. “Is it something that will be covered by health insurance or will patients have to pay for it out of pocket? Will a special protocol have to be implemented in the office? Will assistants need to be trained about how this new technology works? These are important considerations.”

A bad decision
Getting burned by new technology or the companies responsible for servicing them is possible.

“When changes in ownership or priorities with the tech company occur, satisfaction with the cost and/or use of the tech can also change. Getting caught up in a bad contract can jeopardize your practice both financially and technologically,” Berg says. “Sometimes change in priorities can mean systems you rely on don’t routinely get updated, (but that is) vital for your company to stay up-to-date with patient expectations.”

Securing a good contract that covers any worst-case scenario concerns is extremely important to protecting practices from these situations.

“When you make a decision to purchase new tech, you want to work with the salesperson — your advocate with the tech company — to ensure you always have a contractual out in case things do go south,” Berg says.

Lugo has been burned in the past by buying tech too early and purchasing things that didn’t work as expected.

“One of the most important things I have learned is not to buy until I try,” he says. “You must make sure all questions are answered and instead of letting the salespeople tell you how wonderful the system or technology is, you tell them what you need and ask for a demo on how that will work. Be clear on your needs and expectations from the first conversation.”

After all, it’s easy to be lured by bright colors and fancy gadgetry, but at the end of the day, if the tech was not designed to fit your practice’s needs, it could disrupt your work flow and make things more difficult.

“Technology should be a facilitator and not an obstacle,” Lugo says.

When is it time?
There are some important questions to ask before buying any new technology for the practice: What is their financial model for payment — up front, monthly? What are the conditions of terminating our contract? What are the staffing requirements to get the new tech operational? What type of training will staff need and how long will that take?

Matuszewski cites a popular saying in the industry: “If you’ve seen one practice, you’ve seen one practice.”

“The practice culture, willingness to change and ongoing practice transformation activities vary from practice to practice,” Matuszewski says. “If I had the choice, I would rely on the opinions of physician organizations that review new technology and that are willing and able to test and support the practice needs from planning to implementation and support.”

Lugo points out that what works for one practice may not work for another, so even with strong recommendations, a practice owner needs to consider whether it makes sense for them.

“An important aspect is to ensure compatibility with other systems,” he says. “I would not buy tech that is isolated. I need tech that is malleable and that has the functionality to expand, evolve and collaborate. Health care is moving toward integration of systems, and the new technology must have that flexibility or it will be obsolete in a short period of time.”

“If we buy new tech just to be modern, then we are wasting the money. I think it is important to have clear goals in any expense made for the practice.”
Integrating social health into health data exchanges

When housing, transportation and other nonclinical data are shared electronically, clinicians can better understand their patients’ needs

by Jeffrey Bendix, MA Senior Editor

Doctors and health care organizations know the importance of social factors in determining patients’ health outcomes, but they often are frustrated by their inability to securely exchange this information in electronic form and integrate it into patients’ electronic health records.

CyncHealth, which comprises the state health information exchanges (HIEs) for Nebraska and Iowa, began taking steps in 2020 to address that problem. CyncHealth partnered with Unite Us, a technology company that builds networks of health and social service providers, to provide behavioral and social health information on the HIEs. Medical Economics® sat down recently with Jaime Bland, D.N.P., RN, president and CEO of CyncHealth, to learn more about the program. The following transcript was edited for length and clarity.

Medical Economics® (ME): How did this initiative get started? What was the impetus behind it?

Jaime Bland: I started my career as a registered nurse, so I have a background in care coordination. When I came to the HIE I really wanted to incorporate the data that nurses and care coordinators working in the community need to leverage for better patient outcomes. That led me to onboarding various social care strategies, which is where we began to partner with Unite Us, to really facilitate that whole person picture of health.

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ME: Why is it important to include social health data in information exchanged among clinicians?

Bland: We’ve long known that the social care category — housing, transportation, food, utilities — has an impact on health care outcomes. Knowing this information about an individual enables us to inform our clinical decisions when patients are ready to leave the hospital or to make recommendations on nutrition or even look at access to care. These components around social determinants influence how we care for patients as clinicians as well as make decisions about how we discharge patients from hospitals.

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ME: How’s it going? Is there any evidence that it’s helped individual patients or on a population level?

Bland: A lot of these platforms are immature. The recent entry into the market of social care platforms, vertical integration, brings that data into the EHR; it really just entered into the United States Core Data for Interoperability, which is what codifies those data standards in the EHR. That was just finalized in 2021 in the interoperability rules to include those social care components.
As we’re working through the technology and integration components, I would say that we’re early. This is very similar to how we rolled out computerized order entry 20 years ago, and it’s how we began to understand the workflow and data standards and the need for extracting information once we enter the information.

I think it’s very much still in the early stages of integration into health care. Merging social care with health care is challenging. We know this just from the manual processes we have in place today. The approach to codify the data standards and build out work flows that meet both health care and community needs is a huge task. We’re two years into it. We’ve learned a lot from it, and we’re adapting and modifying. We brought in United Way and 211 as partners in community engagement, and one of the things we’ve taken away is the community convening piece, which I think fits very nicely with HIEs. We’re a neutral convenor. We’re trying to facilitate interoperability as well as building a longitudinal record that follows the person, so it really made sense for us to take a lead role in convening the community, agnostic to health system and agnostic to vendor, and leverage other community data collection points into one work group.

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**ME:** Who identifies the need for addressing a patient’s behavioral or social health needs in the first place? Is it the primary care provider (PCP)?

**Bland:** It can come from a number of sources. It can be the PCP or the care manager or even the person checking in a patient at the front desk — for instance, the patient mentions they had a difficult time getting to the appointment because they didn’t have transportation. Those are things we don’t think about as relating to the clinical encounter, but they definitely affect whether someone has access to care or can get from the doctor’s office to the pharmacy or back home. Those are things that we’re bringing in as automated ways to create those referrals and then have that closed loop. Knowing that you referred someone for transportation or utility assistance is one step, but if you know that need was met, the next time you see that individual you have a better sense of how they’re managing their health. That’s what really drew us to a closed loop referral system.

I remember being a nurse and somebody identified a patient need at 4 p.m. on a Friday and thinking, “Who am I going to get to answer the phone at 4 p.m. on a Friday to ensure that this need is met over the weekend?” I would have loved to have a system that sent me an alert that the need was met and I didn’t have to track down someone on Monday morning to check.

So I think that’s very appealing to doctors and care coordinators when sending patients back into the community.

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**ME:** It sounds like what you’re describing is compiling a 360-degree picture of a patient, whereas up to now we’ve only been seeing the clinical aspect.

**Bland:** Absolutely. That’s where the more expanded longitudinal record as well. This will provide a new picture of what health looks like in a digital way, which is the goal of the longitudinal health record and what we felt was our place as the HIE.

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**ME:** I want to talk more about those small practices in rural areas. How do they find out about services their patients may need?

**Bland:** That’s one way we are democratizing these applications and where we saw our role as an HIE to provide those applications to providers. In those one- and two-doctor practices, being able to use a system such as this is probably not financially feasible. But at scale we’re able to provide these applications at nominal cost, working with our largest health systems and our state partners and payers to bring not only the social care platform but event notifications and other applications that normally wouldn’t be available financially to providers in small practices and organizations.

**There’s a lot of persuasion that needs to happen. Because it’s new, it’s seen as a threat to established turfs. And that’s where the community convening component is important.**
“Merging social care with health care is challenging. The approach to codify the data standards and build out workflows that meet both needs is a huge task.”

**ME:** Many small communities lack the network of services to help these people. What do doctors in those places do?

**Bland:** One thing about Unite Nebraska is that myriad resources are available in that repository, so they can look outside of their own communities if they’re lacking resources patients could be referred to.

Additionally, it provides us insight as to where those gaps are. If needs are going unmet, those are data points we can now bring to our state legislators and say these are resources that are constantly being referred and where the need goes unmet, and we have a solid data. It’s really where a lot of these conversations started because we know those gaps exist in behavioral health and housing insecurity and food resources. So this is also a way for us to bring those data to light so we can have those policy conversations and have data-driven information to give policy makers and appropriators so they can direct resources to the appropriate places.

**ME:** Is securing and transmitting social data any different than how you handle clinical data?

**Bland:** Who needs to know about social care is different than who needs to know about clinical data. How we present that information in our longitudinal record is “a housing referral was made.” Some of the details about the encounter will be stored differently and will be visible differently to a provider than, say, the person who was providing the service. So those two things are differently represented in our system and that’s where it’s important to have some understanding of clinical protections and privacy laws versus social care. The more that comes into data standards, the more we can apply the same levels of protection as HIPAA (Health Insurance Portability and Accountability Act).

Privacy and security are top of mind. We have many points of security, layers of security, as well as governance. In Nebraska we have the HIT board, which is ensuring we’re meeting compliance standards for security, and it’s all open meetings. The other thing is we have broad participation in compliance and governance committees, and the data requests that come to us are made visible to our data suppliers.

I think there’s a robust governance in place that meets industry standards for sharing of information, HIPAA requirements, looking at the changing policy considerations from the 21st Century Cares Act into the interoperability rules. All those things are part of our organization and our mission around governance and transparency.

**ME:** What’s been the response from providers?

**Bland:** This is a new technology, so we have typical patterns of adoption — early adopters, intermediate adopters and the laggards. There are some health care systems with robust value-based care programs. They are the early adopters. They want to codify the work flow, bringing those data back from the community, having those alerts and flags for their care managers.

We’ve had some good uptake in rural counties because they do a lot of phone calls, so this is an automated way for them to send out a broad notification that they have an issue that needs to be addressed or referral that needs to be made without tying up a clinical person making 30 phone calls to find a resource to meet a patient’s needs. But for the most part we’re still working on adoption to get those intermediate adopters and laggards onto the platform.

**ME:** Did you encounter any resistance from clinicians or institutions? If so, how did you overcome that?

**Bland:** There’s a lot of persuasion that needs to happen. We’re not replacing anything currently in place. This is a technical enabler. But because it’s new, it’s seen as a threat to established turfs. And that’s where the community converging component is important. It’s a lot of meetings and socializations around how we’re trying to link services together.

There’s always comfort in doing things the way they’ve always been done. But I think if we’re going to make data-driven decisions around human services and truly address cost and quality issues from a state-wide perspective, these are the kinds of systems we need to implement.

Most of what we know about referrals and outcomes is anecdotal because many locations don’t have the ability to link the outcome to the individual. Until we do, we have to rely on aggregate information from claims data and we don’t know whether social and human services in the area actually affect outcomes in a data-based way.
long before COVID-19, telehealth was considered an emergent piece of the health care puzzle. Today, nearly two years into the pandemic, there is no doubt that telehealth has gone mainstream, solidifying the category of hybrid care. Once limited by low adoption rates resulting from limited awareness and lack of favorable reimbursements, telehealth has increased care access and convenience in an environment that has demanded virtual care. However, although much of the discourse around telehealth rightfully focuses on its benefits, the potential drawbacks and limitations are often glossed over, particularly around provider burden.

The reality is that telehealth is not a regular office visit conducted virtually. Rather, it’s an entirely different experience for both the provider and patient. Providers accustomed to treating patients in person have become burdened by being forced to offer virtual care, with its potential technology related issues, informal nature and inability to physically engage with patients. Virtual care also can exacerbate, rather than alleviate, burnout. In the 2021 Medical Economics® Physician Burnout and Wellness Survey, 80% of physician respondents reported they are burned out, with 31% citing too much paperwork and bureaucratic tasks and 24% reporting too many hours worked and poor work-life balance as the cause. Compounded by the ongoing pandemic and added telehealth appointments, the result is an exhausted and burned-out health care workforce. For those outside of health care, think of the immediacy of Zoom meetings with the added stress of a patient’s health and their concerns always one click away.

The economics of telehealth also can create burdens. Shifting patients from in-person to virtual visits results in lower revenue for providers because they are compensated for the cost of physical infrastructure and human resources. For example, virtual care can be delivered from a physician’s home, typically requires shorter visit times, has no physical examination and has no potential for revenue from ancillary or pharmacy services. Adding a virtual care option also significantly increases costs for health care organizations through technology investments and maintenance, as well as making sure that platforms are interoperable. There are added human capital costs, such as staff being required to register, counsel and support both in-person and virtual patients. In an ecosystem where practice economics are already complicated because of differing reimbursement models and incentives that staff must navigate, virtual care adds another layer of complexity that further inhibits organizations’ abilities to maximize patient outcomes and profits.

As we enter this new phase of the pandemic, telehealth will inarguably continue to be an essential piece of the care experience. With our health care systems once again being pushed to their limits, offerings such as telehealth that properly identify visits that do not require in-person attention will both help save lives and keep health care system costs in check. However, as with the introduction of the electronic medical record, telehealth offers significant benefits but not without challenges to providers. The long-term success of telehealth will depend on the entire ecosystem making necessary adjustments to their practices and creating the infrastructure to adapt to the new reality. *
Why ER Doctors Should Embrace In-Home Acute Care

By Amal Agarwal, DO FACEP, MBA, Vice President Home Solutions at Humana

Healthcare has a long history inside the home, where doctors are able to build intimate relationships with patients to deliver personalized and effective medicine. However, the evolving healthcare landscape over the past 40 years has resulted in an increased shift away from in-home care to the hospital for a range of conditions and severities.

Hospitals today see all types of patients, ranging from a mild stomachache or ankle sprain to a cardiac arrest, stroke or traumatic injury. The wide spectrum of patients and lack of accessible care options—compounded more recently by the COVID-19 pandemic—have led to unprecedented demand for hospital beds, causing long wait times in systems that are often already understaffed. If not addressed effectively, we risk compromised care for patients and burnout among overworked healthcare providers.

It’s time to move many healthcare services back inside of the home.

Getting Back to the Home

While not everything can be done in the home, such as invasive procedures requiring anesthesia, there are many cases where in-home care can prove not only convenient, but can also result in improved clinical outcomes – at a lower cost to the patient. When used appropriately, in-home care also allows for a better understanding and relationship between patient and doctor, potentially leading to improved health outcomes.

When patients with less severe illnesses are treated in their home rather than in a hospital, it allows space for higher-priority patients who need critical care. Many of the patients seen in the emergency department do not require the level and cost of care that the emergency room provides. Treating patients at home is beneficial to patients and hospitals alike: it allows hospitals to provide ICU-level care to those that need it most, while allowing patients with more mild illnesses to be treated in the comfort of their own homes at a much lower cost.

Treating the “Whole-Person” In the Home

Many outside factors contribute to a patient’s health that are hard to uncover in the hospital or doctor’s office. By moving health services inside of the home, doctors can identify and address challenges patients are facing in their day-to-day lives, including transportation limitations, food and financial insecurities, unsanitary living conditions, and inadequate housing. This arrangement allows the provider to clarify health goals and expectations together with the patient, family and caregiver—something that is very difficult to do in an acute hospital setting.

Addressing these social determinants of health (SDOH) will help curb the number of repeat visits to the emergency room. Time and time again, I see patients discharged from the hospital and readmitted within just a few weeks with the same signs and symptoms. These repeat patients end up having significant medical bills and exacerbations, since the true root of the problem might be an external factor that is not being addressed. If I can see inside a patient’s home, I get a clearer picture of what that patient’s life is like.

Because of the ability to address more than one health issue in the home, embracing in-home care has proven to be more cost effective and provides far better health outcomes than hospital care alone. A study published in the Journal of General Internal Medicine found that the median cost of acute care for in-home patients was 52% lower than the study’s in-hospital control group.

The Future of Hospital and In-Home Care

As someone who has experience both in the ED and in-home-based healthcare, I have seen the benefits of a hybrid approach to care, with care in the hospital and home settings complementing each other. Hospitals provide excellent high-acuity and ICU-level care, while in-home care can provide personalized treatment using most of the same technologies.

With COVID-19 accelerating the evolution toward in-home care, the potential – and expectations – for growth in this sector are immense, especially as in-home capabilities and technologies improve. These two methods of care delivery work best in conjunction, relying on each other to maximize efficiency and ensure that patients have a positive experience as well as receive the highest standard of care.

Embracing healthcare in the home is the next step in advancing our healthcare system. Patients are asking for it, physicians see the benefits, and payers see the value. In-home care is simply better for the whole ecosystem.

Amal Agarwal, D.O., MBA, is Vice President, Home Solutions Business Development and Strategy at Humana, and a board-certified emergency room physician. He serves as clinical faculty–gratis at the University of Louisville and continues to practice emergency medicine at the Louisville Veterans Affairs Medical Center. He also advises several healthcare start-ups.
Ransomware is perhaps the greatest cybersecurity challenge facing the health care industry right now. A recent survey found that 73% of health systems, including hospital and physician organizations, reported their data infrastructures are unprepared to respond to attacks. The survey estimated that health care providers with 500 or more records are a staggering 300% more vulnerable to data breaches.

Numerous hospitals and medical centers have had operations severely impacted, or even halted from attacks, which is challenging under normal circumstances, but nearly insurmountable in the midst of a pandemic. In the instances reported, files and systems became infected, forcing practitioners to use manual pen and paper systems to keep operations from shutting down completely.

Attackers use a wide range of techniques to break into systems, find sensitive data, deploy encryption tools to lock data, and then demand a ransom in exchange for retrieving encryption keys. By employing the measures outlined below, health care practitioners can help protect their business, their patients, and their data from ransomware attacks in 2021 and beyond.

**Invest in an IT staff**

One key thing that makes a health care system an easy target is an understaffed IT department. For all the advanced medical technology and expertise hospitals and medical centers have in spades, they are frequently less prepared in the IT department. Technical staff and security funding tend to be in limited supply, and bad actors will schedule their attacks on weekends or off-hours, when they know IT staff is scaled back from the regular workweek.

Investing in a professional IT staff will ultimately save practices valuable time and money. Organizations need to shift to a “prepare and prevent” mindset, rather than “deal with the cleanup after-the-fact.”

**Upgrade your security infrastructure**

Another reason health care systems are easy targets is they tend to have a mix of older, legacy equipment and systems, as well as cutting-edge technology. If the older systems are not properly maintained, updated and/or patched, they become vulnerable.

Older medical devices, such as MRI machines or machines with databases built into them, have vulnerabilities that are well known to seasoned ransomware attackers, such as password-related backdoors due to weak manufacturer-set passwords or poor password security practices.

Future-proofing information systems and the application infrastructure against ransom attacks is essential whether or not the practice has suffered an attack. Practitioners must assume that the precursors to the next attack are already inside the system. Once inside a system, ransomware and associated malware are designed to look like normal operations. This is how they are able to dwell inside networks for weeks and months, executing undetected.

Advanced cybersecurity solutions enable visibility into essentially every application function during runtime, with real-time insight into performance. The aim is to stop exploits as soon as they occur, before any significant damage is done. These solutions are designed to detect and stop any code that deviates from normal.
LEGAL / RANSOMWARE

**Educate all employees**

All employees, from doctors to front office staff, must be on high alert. Cybercriminals are using increasingly manipulative exploits during the global health crisis. It’s important for every practice to educate their staff about phishing email and other potential risks to avoid. Research states that nearly 93% of attacks infect systems from a phishing email with a malware-laced link. “Drive-by downloading” is another method where a user accesses an infected website and becomes infected.

Particularly with an increase in remote work, medical networks are even more vulnerable, and staff need to be extra cautious. Oftentimes medical staff need to access critical data from remote laptops, some of which may be personal laptops or devices that have users other than the employee. Without remote work, server workloads would mainly only be exposed to private networks. Now they are exposed to remote workers’ unsecured devices, further exposing practice networks.

Staff should enable two-factor authentication on network devices and systems and follow a password management policy that enforces regular updates and strong passwords. Implement a reliable backup and recovery system protected from network access. Regularly update all software, operating systems, and antivirus solutions. These small steps in everyday practice workflow can ultimately be the first barrier of defense from a ransomware attack.

Regardless of how much practices prepare, hackers will continue to hack successfully. The question health care systems face now is whether their network is prepared to handle better and more frequent attacks without shutting down completely. Health care organizations are critical infrastructure, providing essential services for the public. Their many vulnerabilities leave them exposed, but by implementing these key steps to protect their organization, practitioners can strengthen and fortify their security stance.

Willy Leichter is the VP of Product Management at Virsec, the industry leader in application-aware workload protection. He has over twenty years of experience in product marketing, product management, outbound marketing, communications, digital marketing, and demand generation.

Ransomware attacks on health care can lead to higher patient mortality rate

by Keith A. Reynolds, Associate Editor

Health care providers at the receiving end of a ransomware attack may have more lose more than access to their data.

A new analysis found that ransomware attacks could lead to increased mortality rates. About one-in-four, or 22% of health care providers reported an increase in mortality rate tied to these attacks.

The report was prepared by the privacy, data protection, and information security research center Ponemon Institute and was commissioned by health care IT risk solution provider Censinet. The full report is entitled The Impact of Ransomware on Health Care During COVID-19 and Beyond and is based on a survey of 597 IT and IT security professionals, the release says.

The analysis also warns that the onset of the COVID-19 pandemic has only introduced new risk factors to these providers including remote work and the new systems to support it, staffing challenges, and increased care requirements.

“Our findings correlated increasing cyberattacks, especially ransomware, with negative effects on patient care, exacerbated by the impact of COVID on health care providers,” Larry Ponemon, chairman and founder of the Ponemon Institute, says in the release. “We also analyzed steps that (health care delivery organizations) are taking to protect patient safety, data, and care operations to determine what is working since so many respondents have been victims of more than one ransomware attack.”

The analysis also found that of the providers who had fallen victim to ransomware attacks 71% observed their patient had longer lengths of stay, 70% reported that delays in procedures and tests resulted in poor outcomes, and 65% reported increases in patients transferred or diverted to other facilities. A further 36% say they’ve seen an increase in medical procedure complications.

Ed Gaudet, CEO and founder of Censinet, says that the results are “an urgent wake-up call for the health care industry to transform its cybersecurity risk programs.”
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How to go from doctor to startup founder

by Zach Ferres Contributing Author

Who says tech startups are just for the techies? Doctors, especially those who are business-savvy, make great tech founders, too — once they learn how to play the game.

Not every health care startup strikes gold, of course. Mental health startup Lantern (formerly ThriveOn) acquired more than $20 million in funding before closing up shop because of a lack of customers. CloudMine, a health information technology startup that should have been the best of both worlds, filed for bankruptcy in November. Oh, and we’ll never forget the Enron-ish story of Theranos.

But with more of the health care world getting eaten up by tech, it might be worth getting into the game.

**Why doctors make great founders**

Lantern and CloudMine ran into troubles they could have foreseen. Claritas Genomics, a company that specialized in pediatric genetic testing, achieved a $60 million valuation before a tough market and misalignment between investors and founders forced the business to close.

Most businesses don’t even make it that far, but those struggles are not limited to health care startups. Any founder who doesn’t understand the venture capital (VC) landscape could make the same mistakes.

When outsiders join the startup world, they typically run into a few common pitfalls. Many raise too much money at rich valuations from their doctor friends, which ends up hindering them later in financing. Founders need to understand the fundraising journey or else they might waste limited resources on things that aren’t necessary to reach their goal.

Some doctors become too married to a solution they’ve identified, leading them to forget the problem they set out to solve — a common issue in all startup circles. They can also suffer from a lack of experience in product development or sales, which can hinder growth.

Despite these obstacles, doctors are uniquely qualified to be excellent health care tech founders and even operators. Entrepreneurs with medical degrees — not computer science degrees — will drive much of the health care innovation to come in the next few years.

While these medical practitioners might not immediately be familiar with the startup world, they bring invaluable knowledge of the complex health care system to the table. They know how money moves, how incentives work and which regulations apply in which circumstances.

They also have relationships with institutions, which can help them find early customers. A deep understanding of medical problems provides them with invaluable starting points for making an impact with startups in this space.

That said, doctors cannot make the leap from
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caregivers to CEOs without business experience, and they need partners who know how to navigate the complex world of startup culture. By being surrounded with the right people, they can turn their ideas into realities.

Evolving from doctor to founder
Doctors looking to get involved in the meaningful (and lucrative) world of health care technology should take time to pursue their dreams — the right way. Here’s how:

1. **Identify a big problem to solve**
   Start with the problem, not the solution or the product. Successful entrepreneurs tend to focus more on what people need than the best way to fulfill that need. Things change quickly in both health care and tech, which means no potential solution is safe from disruption. The most successful health care tech companies solve really big problems.

   Have a plan, but don’t over-plan. At Coplex, we used the Lean Canvas, which helps founders create blueprints for a business model in about 20 minutes. This forces you to think through your entire business model around the big problem you are solving and the assumptions you are making with the new business. Keep in mind that you will get lots of things wrong and that this document will evolve as you iterate on your business model.

2. **Become CEO or find a partner**
   Many doctors are better suited to product development or even roles like chief science officer or chief medical officer than positions in business operations. When that’s the case, find a smart person to handle the critical task of guiding the company forward. If you’ve got the business chops from running your own practice, grab the reins. Just remember that no company will last long with a founder who’s too proud to see his or her own limitations.

3. **Raise and allocate starting capital**
   In the pre-seed stage, most money comes from personal accounts or investments from friends. We call the “first money in” on most venture deals the “three F’s” money: friends, family, and fools. These are often the only people who will bet on you at the start. This first funding round is more about selling the idea and getting people to believe in you making it happen. Don’t raise too much, only what the business needs to get started and to get you to the next stage, which we call a seed round. Raising too much too soon can lead to “down rounds” at the seed stage or taking too much dilution at a really low price.

4. **Learn the rules of fundraising**
   With the company up and running, don’t assume everything will work out on its own. Make a point to learn the checkpoints between each fundraising gate and then make the right efforts and capital allocations to move forward. This infographic provides more information for digital health startups.

   Building a company for VC puts it on a different path from growing it organically (what we call bootstrapping), but it gives you the ability to capture the market and create more value in a much shorter period of time.

5. **Make the right opening moves**
   The world of tech moves quickly and takes no prisoners, which means you should collect knowledge first. To get you started, consider reading “The Lean Startup” by Eric Ries to learn how to turn an idea into a reality. Once you know more, make a plan and then get products into the hands of customers as quickly as possible. Validate or invalidate your business model assumptions, learn, iterate and repeat. Don’t go build a product for two years, release it, and pray that mass markets accept it. That is a recipe for failure in tech.

   Ultimately, if you’re unsure about founding a health care startup, consider starting small by investing in the local scene. Join an angel investment group to help others pursue their dreams while grabbing a piece of the hot asset class. Not only will those dollars help make the world a better place, but when invested in the right company, they might also lead to a substantial payday. Who knows? The decision to invest might even open doors for you to take the leap and found a startup yourself.

Zach Ferres is an entrepreneur and technology executive with a passion for building startups and the entrepreneurial communities around them. He is the former CEO of Coplex, a nationally ranked venture builder that partners with industry experts to start high-growth tech companies.
Don’t give your power of attorney to the wrong person

by David Robinson, CFP

When physicians work with professionals on estate planning, powers of attorney (POA) are often viewed as an afterthought, to be addressed only after the will and trust documents completed.

When attention is finally turned to POAs, the issue of whom to appoint as agent — the person who receives power of attorney — usually gets short shrift. These agents take over your affairs in specific areas if you become physically or mentally incapacitated. Whom to appoint should be an area of focus for physicians with significant accumulated wealth as they plan their estates.

Choosing the wrong person to act as agent for a financial POA can set the stage for unintended consequences that might result in disastrous outcomes, hazardous to your health and your wealth.

If both of these POAs are held by the same person, there’s potential for a cornucopia of conflicts. And if that same individual is also a beneficiary in your will, the conflict-potential level could rise to DEFCON 1.

Conflicts can result in agents serving themselves instead of you, so agents should be selected with great care and not entrusted with more than one POA. Ideally, this person shouldn’t be a beneficiary, though avoiding this dual status can be difficult when the natural inclination is to make one’s spouse the agent of both POAs, which is quite common.

But whether this is a good idea may come down to knowing how good and truly loving your marriage is or, if you’re not married, how solid your relationship. It’s a good idea to ask yourself: How well do you know this person and how long have you known him or her?

At the very least, if you appoint the wrong person as agent for your financial POA, incompetence can hamstring investment gains and erode assets. In a worst-case scenario, a self-dealing agent can change beneficiaries (making himself or herself one) or redirect portfolio income to themselves. But these actions are legal only if POA documents allow it. This is one of many reasons that these documents should be carefully considered and drafted.

Even when agents are well intentioned, poor decisions can be made, so it’s critical to have highly competent people make financial and medical choices on your behalf.

Designating the right person(s) as agents is only part of assuring desirable financial and medical stewardship. The other important part is crafting POA documents correctly to delegate the right powers, conditioned on specific circumstances, in accordance with your wishes.

Failing to read POA documents carefully—or to make changes to limit agents’ power—could be an especially detrimental lapse when the presumed agent brings the documents to you on their own initiative. If the documents come to you out of the blue, with no prior discussion, this should get your antenna up. When people sign POAs without carefully reading and considering their provisions — or without involving a qualified attorney — they’re oblivious to the poor position they may be putting themselves in.

When discussing agent candidates with your attorney or estate planner, you might want to consider:

- **Designating different grown children as agents for financial and health care POA.** If you have doubts about the ability of spouse or significant to serve as your POA agent, this could be a better option.

- **Designating co-agents.** A single POA doesn’t have to be held by a single person. You could have two agents working together to execute one POA. The usual trust threshold applies, but the two also must be able to work together.

- **Keeping agents separate.** The surefire way to avoid conflicts that can ensue from one person’s having both financial and health care POA is simply to not give both to the same individual. These duties should be assigned to two different people.

David Robinson, CFP, is an advisor with Mariner Wealth Advisors in Phoenix.
Get your estate planning done now

State planners are in something of a holding pattern as they wait to see whether Congress will pass tax legislation this year. It’s unknown what changes may occur, or whether any changes will be retroactive to the beginning of 2022. But even with this uncertainty, there are plenty of things we do know, and plenty of reasons for people to get their estate planning done despite, or even because of, potential future changes.

In 2022, the federal estate and gift tax exemption is $12,060,000 per person, or double that for a married couple. That means that everyone can give away during life, or leave at death, up to $12,060,000 without incurring any federal estate or gift tax. There were proposals in 2021 to reduce that amount; so far nothing has happened. Under current law, if Congress doesn’t act between now and 2026, that number will be reduced by half. The likelihood that the exemption will be reduced, whether in 2026 or before, means that people with large estates have some motivation to use the $12,060,000 exemption while they still can by making gifts to the next generation or setting up trusts for their descendants.

Consider future value

There are other important tax benefits to getting your estate plan in order. Keep in mind that life insurance, if you own it yourself, is part of your taxable estate. Basic estate planning often includes strategies to move life insurance outside the taxable estate, for example, in an irrevocable life insurance trust, so that it passes to heirs tax free. This is something to consider if your estate, including the value of life insurance, is anywhere close to the projected 2026 estate tax exemption of approximately $6 million. Physicians who have many high-income working years ahead of them should also consider if that into the likely future value of their estate. And it’s important to consider if you happen to live in one of the states that has a separate state estate tax. Some of these states have exemptions that are significantly lower than the federal exemption amount, and estate tax planning can help to avoid state and federal taxes.

Putting taxes aside, estate planning is important to make sure that assets pass to the right people in the right way. This often includes trusts for children to ensure that they don’t directly receive an inheritance before they’re mature enough to handle it. A trust allows the parent to set the age or ages at which the child has access to the assets. The parent can also determine what rules will govern how the money will be invested and spent in the meantime, as well as name a trustee who will manage the trust. Trusts that last for children over the long term can provide a measure of asset protection as well, giving them some insulation from things such as lawsuits and divorcing spouses.

Business succession plan

Another part of estate planning for physicians is the business succession plan. If you own an interest in a practice, you should give careful thought to what would happen to that interest if you passed away. A succession plan can provide a method and ensure the funds by which one partner can buy out the interest of another. Or it can be as simple ensuring there are adequate funds for the family to make ends meet while the practice is either sold to a third party or wound down. *

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How COVID-19 exacerbates the physician shortage

Doctors face increased burnout rates, loss of autonomy and greater financial threats from nonphysician practitioners

by Todd Shryock Managing Editor

The United States was short on doctors before COVID-19. The pandemic put massive strain on the entire health care system, pushing physicians to their limits as they try to care for patients. Healthcare organizations made changes in response, and not all were positive. Medical Economics® spoke with Alyson Maloy, M.D., FAPA, a member of Physicians for Patient Protection, a physician advocacy group, about the physician shortage and what it means for medicine in the long run. The transcript has been edited for length and clarity.

Medical Economics® (ME): What has COVID-19 taught us about the physician shortage in the U.S.?

Alyson Maloy, M.D. (AM): What COVID-19 has taught us is that the physician shortage in the U.S. right now is here and it’s severe. There (have) been a lot of predictions and projections ... about when it would be and how many physicians the shortage would consist of. One of the most recent was that there will be a shortage of up to 124,000 physicians by 2034 and that would include primary care and specialty physicians. I don’t know what the shortage is as of this moment, but it’s here.

For example, I practice in Portland, Maine. This is the most urban area in Maine and people cannot find a primary care physician (or) a psychiatrist. They have to go out of state. Because of the pandemic, about half the psychiatrists in my state retired this year and we knew it was coming. It was an older population of psychiatrists, but it happened in one fell swoop and (they) weren’t able to transfer all their patients to new psychiatrists — and forget about people who for the first time are looking for a psychiatrist. Additionally, specialty care like neurology in this town is booking out about four months. That’s just not workable; most neurologic problems need to be seen within weeks, not months. COVID-19 really brought on the shortage sooner, because a lot of physicians who were maybe on the cusp of retiring just retired sooner.

Then of course, you have all the physicians ... dealing with COVID-19 (who) were being taken away from their other, regular positions. Ironically, a lot of physicians were let go from their positions in the pandemic because hospitals needed to shut down elective surgeries. So those surgeons who were doing maybe ENT (ear, nose and throat), dental or orthopedic procedures were just let go because the physicians were costing the system too much money. Ironically, those same physicians were asked to volunteer on the front line (of the pandemic).

ME: Why have rural and underserved communities suffered even more during the shortage?

AM: Rural communities have suffered more historically because clinicians of all types — physicians,
I'll use veterans as an example. Veterans have Department of Veterans Affairs, or VA, insurance, they are treated in the government health system and the VA has decided that all nurse practitioners can work independently from physician involvement, which is called full practice authority. So now the VA does not need physicians to accomplish seeing patients. A veteran who wants to use their VA insurance goes to the VA to get medical care and instead they’re provided with what’s called health care by someone who does not have a license to practice medicine independently but (has) been put in the position to practice health care independently — and the veteran has no option to get physician-led care.

"Let physicians work to the top of our license; we do not need to be spending 20 hours a week hitting buttons on a computer. ... It is absolutely a waste of our talent."

Corporations and big lobbying groups whose interest is to make money, their interest is not in providing quality patient care. This has happened because of the private equity takeover (of) the field of medicine. We have these organizations feeding us this lie to justify the practice models they are setting up.

Existence of this lie compounds physician burnout … because we see these terrible things happening to patients that would not be happening if they were being seen by physicians. That is just heartbreaking. I’ll give one simple example. A patient goes to see a nurse practitioner with a lesion on their finger. It’s diagnosed as a fungal infection (and) they’re treated with antifungals and other medications for six months. Lo and behold, it’s a melanoma and if a dermatologist had seen this, or a primary care physician, it would not have been diagnosed as a fungal infection. Melanoma is one of the most rapidly metastasizing cancers. Six months was basically a death sentence to that patient. That is demoralizing. The other piece of this that is demoralizing to physicians comes from the Dunning-Kruger Effect. That is a cognitive bias created by lack of knowledge, and it argues that people who have the most training are the most aware of their knowledge deficit. The people who have the least training are the least humble about their knowledge deficits and are least aware of them. As physicians, when we try to bring up this emergency in medical care in this country... with administrators or NPs, and we try to work on efficient, safe, effective medical teams that contain a physician expert, a nurse practitioner, a physician assistant, a social worker and an RN, we’re told we have this position only because we’re worried about money or about a turf war, or other nonsensical arguments that are really just a projection onto us.

There’s no physician I know (who) is approaching this crisis from that mentality. We would not have sacrificed our entire youth and all our finances for 15 years of working for less than minimum wage if we didn’t care about the profession. If you want to make a lot of money today, don’t become a physician. Like that’s no secret, right?
ME: Do you see health care organizations using the shortage as an excuse to install NPs in roles that a doctor should be leading?

AM: Don’t get me started. In Maine, in March 2020, the legislature pushed through in a matter of five days a physician assistant independence bill that had been languishing in committee for two years. That was the week that the state of Maine called (for) emergency shutdown. Every physician I know, myself included, was consumed in converting our practices to telemedicine, making sure we could continue to provide medical care for patients in a safe way. It was all hands on deck. Even one of my own professional organizations — when I spoke with their experts in legislative affairs, they had no idea that this law had even passed, and they’re all over these topics. It was really pushed through in this moment of crippling fear, when the state just wanted to make sure that physician assistants didn’t have to have some silly administrative form signed if a patient … needed emergency care. The problem was that there was no end date put on this legislation. So now we have this permanent law, that … after a certain number of clinical hours, a physician assistant can basically hang a shingle and function like a physician. … People have freedom of choice, they have a right to go to whatever health care person they choose. This would not be a problem if patients knew about the differences in training between the different clinicians. Unfortunately, a lot of the lobbyists and their powerful corporate groups who make a lot of money (from) the confusion do everything they can to help patients not know who is seeing them, and the biggest way they’ve done this is to lump us all into one category and call us providers. There’s no longer a physician, nurse practitioner or physician assistant — we’re just providers, which is a very offensive term to physicians.

ME: What needs to happen to combat the physician shortage and make sure physicians are leading patient care?

AM: What needs to happen is creating more medical residency positions. The United States right now is 24th out of 28 countries studied in the number of primary care physicians we are producing; there is literally no reason for us to have a physician shortage. This is an artifact from the Balanced Budget Act of 1997. We have not grown the number of medical residency positions since the late ’90s. No other industry in the country has held steady at staffing numbers except medicine. In that same period, the number of medical school positions has increased by 20%. We have 10,000 medical school graduates right now. These are physicians who would be able to work in a physician position if not for the fact that we do not have enough medical residency positions, and they have been unable to complete their medical training. Someone who has about eight years invested in the process of becoming a physician and has their M.D. or D.O. degree — we have about 10,000 of those people who can’t practice because they weren’t able to do the residency piece. These medical school graduates are called assistant physicians. There are several states trying to pass legislation where these (assistant physicians) can have a pathway to practice at the state level because they have far more training than any other nonphysician provider, and it is insane to not use that incredible knowledge. Creating more medical residency positions is the No. 1 thing we need to do to combat the physician shortage.

As we speak, there is the Resident Physician Shortage Reduction Act of 2021. That was introduced by Sens. Bob Menendez, D-N.J., and John Boozman, R-Ark., and this would create 2,000 new residency positions over seven years. It will produce 14,000 more physicians over the course of those seven years — that’s not going to be sufficient. But that bill is in Congress right now and we absolutely need to get that bill passed. One thing we can do to reduce the physician shortage is to stop forcing physicians to spend what would otherwise be clinical time embroiled in ridiculous, nonsensical documentation and form filling. We could be so much more productive if all of us had scribes to do the office notes for us; if we had the right support staff. There (are) all these catchphrases out there about letting clinicians work to the top of their licenses. This is an argument for nurse practitioners to get full practice authority. This is an argument for Ph.D.s to get optimal team practice.

I say let physicians work to the top of our license; we do not need to be spending 20 hours a week hitting buttons on a computer to enter information into these archaic, electronic medical record systems. It is absolutely a waste of our talent. And that alone would free up a lot of physician hours to take care of patients. —

After our interview with Alyson Maloy, M.D., published online, the American Association of Nurse Practitioners submitted a response, which we published on MedicalEconomics.com. Check it out here:
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<table>
<thead>
<tr>
<th>Item Category</th>
<th>Approximate Number of Items</th>
</tr>
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<tbody>
<tr>
<td>Public Vaccine</td>
<td>200-500 doses</td>
</tr>
<tr>
<td>Private Vaccine</td>
<td>50-200 doses</td>
</tr>
<tr>
<td>Test strips</td>
<td>1,000-5,000 strips</td>
</tr>
<tr>
<td>Reagents</td>
<td>10-50 bottles</td>
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</tbody>
</table>

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— Mark J. Nelson, MD, FACC, MPH

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After Hours

Mike Middleton, M.D.
Physician and accordion player

by Logan Lutton, Associate Editor

Mike Middleton, M.D., is a nuclear medicine physician in Texas and also is an award-winning accordionist. Middleton sat down for an interview with Medical World News® to discuss what inspired him to play the accordion and the value of hobbies for physicians. The transcript below was edited for length and clarity. Visit Medical World News® for the full video interview.

Medical World News® (MWN): When did you start playing the accordion?

Mike Middleton, M.D.: My mother tells me I became interested when I was about 6 years old. My dad was a district Boy Scouts executive, and we were at a Scout camp in New Mexico. There was an older man who used to play this accordion at the campfire. And my mom said I was just totally infatuated with this box that this guy had because it had all these buttons. I just kept going up and pushing them, and the guy would show me stuff.

That must have triggered something in my brain as a little kid. For my birthday, my mom bought me a little 12 bass accordion, and I started with lessons at the beginning of kindergarten. I remember it pretty clearly.

Nowadays (playing the accordion) is not as prevalent, and it’s harder to find teachers. Back then the accordion was a lot more popular, even though it wasn’t as popular as it was in the 1940s and 1950s. What made the accordion less popular was the development of the guitar; all teenagers wanted to start playing the guitar and drums. I was one of the weird kids who stuck with the accordion.

MWN: Is there a connection between medicine and music?

Middleton: I would say so. I have played in a lot of nursing homes, memory care facilities and retirement centers. And I have learned over the past 30 years that there is something in people as they get older — they may forget stuff, they may forget where they put their keys a few hours ago, they may forget people’s names. But you know what they don’t forget? Songs from when they were younger. At memory care facilities, I play for a lot of Alzheimer’s groups and Parkinson’s groups.

Sometimes they’re kind of hunched over and just look depressed and they’re in their own world. But music triggers something in the brain and starts firing those synapses, and they start remembering songs. They pay attention, they start tapping their foot or clapping their hands. And it’s always been one of the most rewarding things to me to make people happy playing music. That’s the connection that I see. I’m sure there’s a much, much better scientific explanation for it.

I’m a nuclear medicine physician. Part of my job is to inject radio isotopes into patients to either look for cancer or see if their cancer has gotten worse. None of my patients really ever thanked me for that; it’s not something you want to thank your doctor for. But I do get a lot of satisfaction from people who appreciate my music.

MWN: Anything you’d like to add?

Middleton: I’ve had a lot of friends who are physicians who have retired. Medicine was their life, and they find a void when they retire. If I could give one message to other physicians, it’s try to find the balance between your professional career and your home life. Find something you’d like to do as a hobby. It happens that accordion playing is my hobby. I make money at it, but I would do it if
I wasn’t paid at all because it’s fun and it uses a different part of my brain. It gives me something to do so I’m not thinking about my patients’ conditions. When you’re a physician, you’re dealing with life-and-death situations, you’re dealing with cancer, and it can be quite depressing. Even though I feel like I’m helping my patients, it can just leave you frustrated and sometimes very sad. That eats at you after years and years of taking care of patients. I think the doctors I’ve known who have done well over the years and seem to be happier are those who have found a balance and found something that they like doing outside health care. So doctors should find something that they like to do. It doesn’t have to be the accordion; it can be gardening or sailing or whatever. I just think it’s important to find a balance.”
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