A Free, 90-Minute Live and OnDemand Activity **Premiere Date: Wednesday, August 26, 2020** 6:30 PM - 8:00 PM ET (live) Credit Expiration Date: Thursday, August 26, 2021

# https://www.cmeoutfitters.com/ShinglesVax #ShinglesVax

LIVE FACULTY: Anthony Cunningham, MD, MBBS and Iris Gorfinkel, MD, CM MODERATOR: William Schaffner, MD

# Take advantage of our LIVE Q&A segment during this webcast!

Please click on the **Ask a Question** tab and type your question.

Email your question or comment: questions@cmeoutfitters.com

All other questions: Call CME Outfitters at 877.CME.PROS

This continuing education activity is provided by



# **INFORMATION FOR PARTICIPANTS**

# **Statement of Need**

Shingles, or herpes zoster, is a common secondary infection for older patients. Almost all individuals over the age of 50 are latently infected with varicella zoster virus (VZV) and therefore are at risk of developing shingles with reactivation of latent VZV. Individuals who develop shingles often experience debilitating postherpetic neuralgia (PHN), secondary skin infections, eye problems, or neurologic conditions including an increased risk of stroke.

Despite the existence of vaccines, the number of people vaccinated for shingles remains low. In large part, this is due to the majority of individuals being unaware that a vaccine exists, as clinicians often fail to initiate discussion about it.

This CME Outfitters Live and OnDemand webcast will focus on the burden imposed by shingles, improving uptake of vaccination and series completion for shingles through patient education, and applying real-world strategies to implement shingles immunization protocols.

# **Learning Objectives**

#### At the end of this CME/CE activity, participants should be able to:

- Identify the primary risk factors and clinical and quality of life (QoL) complications imposed by shingles.
- More frequently and effectively educate eligible patients about shingles vaccination to improve uptake of vaccination and series completion for shingles.
- Apply real-world strategies to implement shingles immunization that consider safety and efficacy of available therapies, storage and administration, and pharmacy-based vaccination.

#### The following learning objectives pertain only to those requesting CNE or CPE credit:

- Identify the primary risk factors and clinical and QoL complications imposed by shingles.
- Explain ways to educate eligible patients about shingles vaccination to improve uptake of vaccination and series completion for shingles.
- Summarize real-world strategies to implement shingles immunization that consider safety and efficacy of available therapies, storage and administration, and pharmacy-based vaccination.

# **Target Audience**

Physicians, PAs, nurse practitioners, nurses, and pharmacists

# **Financial Support**

This educational activity is supported by an educational grant from GlaxoSmithKline.

# **CREDIT INFORMATION**

# **CME Credit (Physicians)**

CME Outfitters, LLC, is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. CME Outfitters, LLC, designates this live activity for a maximum of 1.5 AMA PRA Category 1 Credit(s)<sup>M</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**Note to PAs:** PAs may claim a maximum of 1.5 Category 1 credits for completing this activity. NCCPA accepts AMA PRA Category 1 Credit<sup>™</sup> from organizations accredited by ACCME or a recognized state medical society.

# **CNE Credit (Nurses)**

Provider approved by the California Board of Registered Nursing, Provider Number CEP 15510, for 1.5 contact hours.

**Note to Nurse Practitioners:** Nurse practitioners can apply for *AMA PRA Category 1 Credit*<sup>™</sup> through the American Academy of Nurse Practitioners (AANP). AANP will accept *AMA PRA Category 1 Credit*<sup>™</sup> from organizations accredited by the Accreditation Council for Continuing Medical Education. Nurse practitioners can also apply for credit through their state boards.

# **CPE Credit (Pharmacists)**



CME Outfitters, LLC, is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education. 1.5 contact hours (0.15 CEUs)

Universal Activity Number: Live: 0376-0000-20-110-L01-P; Enduring: 0376-0000-20-110-H01-P Type: knowledge-based

## **ABIM/MOC Credit**

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 1.5 MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. Participants will earn MOC points equivalent to the amount of CME credits claimed for the activity. It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

Learning Formats: Live activity; Enduring material

# **Royal College MOC**

Through an agreement between the Accreditation Council for Continuing Medical Education and the Royal College of Physicians and Surgeons of Canada, medical practitioners participating in the Royal College MOC Program may record completion of accredited activities registered under the ACCME's "CME in Support of MOC" program in Section 3 of the Royal College's MOC Program.

#### **MIPS Improvement Activity**

This activity counts towards MIPS Improvement Activity requirements under the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA). Clinicians should submit their improvement activities by attestation via the CMS Quality Payment Program website.

# **CREDIT REQUIREMENTS**

**Post-tests, credit request forms, and activity evaluations must be completed online** (requires free account activation), and participants can print their certificate or statement of credit immediately (75% pass rate required). This website supports all browsers except Internet Explorer for Mac. For complete technical requirements and privacy policy, visit https://www.cmeoutfitters.com/privacy-and-confidentiality-policy.

There is no fee for participation in this activity. The estimated time for completion is 90 minutes. Questions? Please call 877.CME.PROS.

# **FACULTY BIOS & DISCLOSURES**

#### William Schaffner, MD (Moderator)

Dr. William Schaffner is Professor of Preventive Medicine in the Department of Health Policy and Professor of Infectious Diseases at the Vanderbilt University School of Medicine, Nashville, Tennessee.

Dr. Schaffner's primary focus has been the prevention of infectious diseases. He is a strong proponent of collaboration between academic medical centers and public health institutions. He has worked extensively on the effective use of vaccines and has been a member of expert advisory committees that establish national vaccine policy.

Dr. Schaffner is committed to the communication of disease prevention with the general public and regards this as a teaching opportunity. He is often invited to comment on communicable disease issues on local and national media, translating research and public health events into language that the public can understand.

After graduating from Yale in 1957, Schaffner attended the University of Freiburg, Germany as a Fulbright Scholar. He graduated from Cornell University Medical College in 1962 and completed residency training and a Fellowship in Infectious Diseases at Vanderbilt. He was commissioned in the U.S. Public Health Service as an Epidemic Intelligence Service Officer with the Centers for Disease Control and Prevention (CDC) for two years. He returned to Vanderbilt after that tour of duty and established a long collaboration with the Tennessee Department of Health and the CDC.

# Anthony Cunningham, MD, MBBS

Dr. Cunningham stepped down as Executive Director of The Westmead Institute for Medical Research after 23 years (1996-2019) and now continues as Director of the Institute's Centre for Virus Research and Professor, Faculty of Medicine and Health in the University of Sydney. He is also Director of the Australian Centre for HIV and Hepatitis Virology Research (ACH2), which is funded directly by the Australian Government, as well as the NSW/ACT State Branch Chair, The Australian Academy of Health and Medical Sciences.

He is a clinician scientist who trained in infectious diseases and virology research at the University of Melbourne and as a postdoctoral fellow in infectious diseases at Stanford University. His longstanding research is in herpesvirus and HIV immunology relevant to vaccine development, culminating in lead international roles in the pivotal trials of a vaccine candidate for herpes simplex and a highly efficacious vaccine for herpes zoster. He has published extensively in most aspects of immunization for herpes zoster and more broadly on immunization in general. He is currently investigating the mechanism of action of adjuvants to counteract declining immunity and vaccine efficacy in ageing populations.

# Iris Gorfinkel, MD, CM

Dr. Gorfinkel is a family physician and Founder/Principal Investigator of PrimeHealth Clinical Research. She has participated in over 60 clinical trials and has a special interest in vaccination research. She helped co-author seminal papers on shingles vaccination and is on the advisory board for GlaxoSmithKline. Additionally, Dr. Gorfinkel is active in-patient advocacy and produces a regular medical radio column on CBC Radio One.

# **Disclosure of Relevant Financial Relationships with Commercial Interests**

It is the policy of CME Outfitters, LLC, to ensure independence, balance, objectivity, and scientific rigor and integrity in all of their CE activities. Faculty must disclose to the participants any relationships with commercial companies whose products or devices may be mentioned in faculty presentations, or with the commercial supporter of this CE activity. CME Outfitters, LLC, has evaluated, identified, and attempted to resolve any potential conflicts of interest through a rigorous content validation procedure, use of evidence-based data/research, and a multidisciplinary peer review process. The following information is for participant information only. It is not assumed that these relationships will have a negative impact on the presentations.

Dr. Schaffner has no disclosures to report.

Dr. Cunningham reports he is on the advisory committee for GlaxoSmithKline.

Dr. Gorfinkel reports she receives research support from GlaxoSmithKline and Merck & Co., Inc. She is on the advisory committee and consultant for GlaxoSmithKline.

Kashemi D. Rorie, PhD (planning committee) has no disclosures to report.

Jeffrey Helfand, DO (peer reviewer) has no disclosures to report.

Mae Ochoa, RPh (peer reviewer) has no disclosures to report.

Evan Luberger (planning committee) has no disclosures to report.

Jan Perez (planning committee) has no disclosures to report.

Sharon Tordoff (planning committee) has no disclosures to report.

Disclosures were obtained from the CME Outfitters, LLC staff: No disclosures to report.

#### **Unlabeled Use Disclosure**

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# **Activity Slides**

The slides that are presented in this activity will be available to download and print out at the CME Outfitters website: **www.cmeoutfitters.com/ShinglesVax**. Activity slides may also be obtained via fax or email by calling **877.CME.PROS**.



Supported by an educational grant from GlaxoSmithKline

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3 Things to Do

- 1. Actively participate in the meeting by responding to questions and/or asking the faculty questions (It's okay if you miss answering a question or get them wrong; you can still claim MOC)
- 2. Complete your post-test and evaluation at the conclusion of the webcast
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CME A



# William Schaffner, MD

Professor of Preventive Medicine, Department of Health Policy Professor of Medicine, Division of Infectious Diseases Vanderbilt University School of Medicine Nashville, TN



# Anthony Cunningham, MD, MBBS

Director, Westmead Institute for Virus Research Professor of Medicine and Health University of Sydney Medical School Director, Australian Centre for HIV and Hepatitis Virology Research (ACH2) New South Wales / Australian Capital Territory State Branch Chair Australian Academy of Health and Medical Sciences Westmead, NSW, Australia

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# Iris Gorfinkel, MD, CM

Founder and Principal Investigator PrimeHealth Clinical Research Toronto, ON Canada CME Outfitters

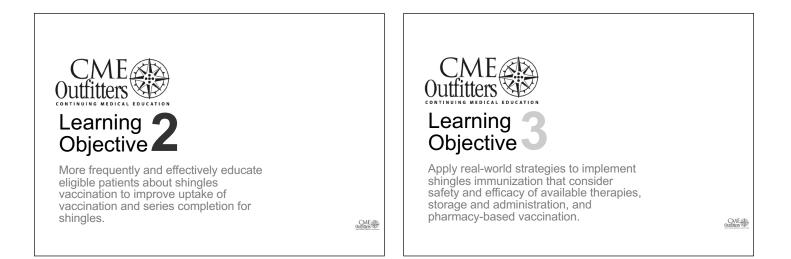
Learning Objective

Identify the primary risk factors and clinical and quality of life (QoL) complications imposed by shingles.

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# **Risk Factors for Herpes Zoster (HZ)**

- Increasing Age
   Less opportunity for boosting?
   Less frequent exposure to varicella cases
   Less frequent contact with multiple ill children
- Decline in cell-mediated immunity
  - Immunosenescence
     Cell-mediated immunosuppressive disorders

  - Haematological malignancies
     Immunosuppressive drugs
     HIV: 12-17-fold increased risk
- Gender: Increased risk in females
- Race: Risk in African Americans less than half that of Whites
- Trauma or surgery in the affected dermatone

Thomas SL, Hall AJ. Lancet Infect Dis. 2004;4(1):26-33.; Liesegang TJ. Curr Opin Ophthalmol. 2004;15:531-536.; Donahue JG, et al. Arch Intern Med. 1996;155(15):1605-1609.

• Early varicella (in utero, infancy): Increased risk of pediatric zoster

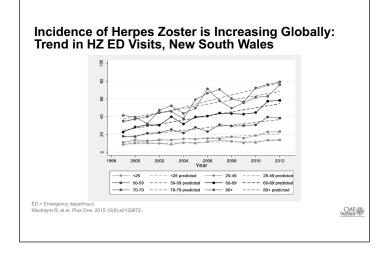
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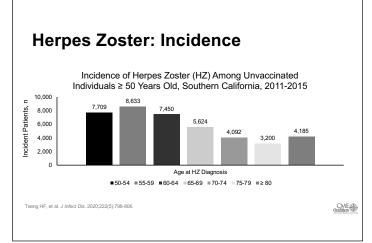


# Complications of Herpes Zoster

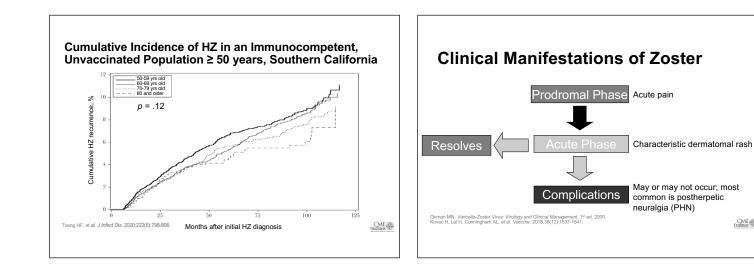
An Animated Tour

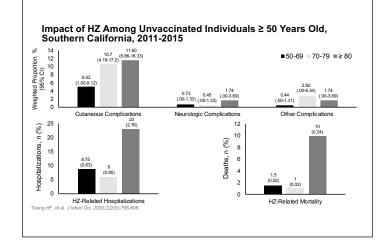
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# **Herpes Zoster-Associated Pain**

- May persist, appear, change character<sup>1</sup>
- Origin not only from ganglionitis, but also from skin necrosis<sup>2</sup>
- Persisting pain is from ganglionic damage and misinterpretation of normal skin sensations as being painful (allodynia)3
- Pain for > 90 days after rash onset is defined as PHN<sup>1</sup>

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1. Cukic V. Med Arch. 2016:70(1):72-75 Sawell GS, et al. Am J Med. 2000;108(6):520-521.;
 Sampathkumar P, et al. May Clin Proc. 2009;84(3):274-280.

# **Risk Factors for**

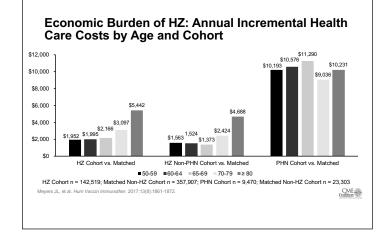
- Age, particularly increasing age
- Gender (women)
- Severe immunosuppressive conditions (e.g., leukemia, lymphoma)
- Autoimmune conditions (e.g., rheumatoid arthritis)
- Severe shingles
- Severe acute pain
- Asthma
- Diabetes
- Presence of a prodrome symptoms preceding the rash by approximately 1-4 days

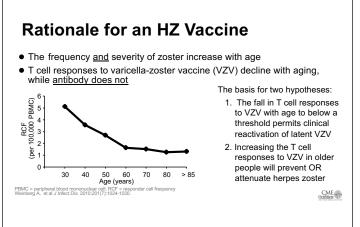
a MAE. US Pharm. 2011;36(5):24-26 /. 2016;8 (1):94–102.; Z

Impact of Postherpetic Neuralgia on Quality of Life in Older Adults

Physical	Psychological
<ul> <li>Chronic fatigue</li> <li>Anorexia</li> <li>Weight loss</li> <li>Physical inactivity</li> <li>Insomnia</li> </ul>	<ul> <li>Depression</li> <li>Difficulty concentrating</li> <li>Potential caregiver burden</li> </ul>
Social	Functional
<ul> <li>Decreased social gatherings</li> <li>Change in social role</li> </ul>	Interfere with basic and instrumental activities of daily living     Dressing, bathing, eating, mobility     Traveling, cooking, housework, shopping
hmader KE. Clin Infect Dis. 2001;32(10):1481-1486.	Chouti

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#### Advisory Committee on Immunization Practices (ACIP) Recommendation for HZ Vaccines

#### **RZV** is recommended for:

- 1. Prevention of HZ and related complications for immunocompetent adults aged 50 years and older
- 2. Prevention of HZ and related complications for immunocompetent adults who previously received zoster vaccine live

RZV is preferred over ZVL for the prevention of HZ and related complications  $% \left( {{{\rm{TV}}_{\rm{T}}}} \right)$ 

ed zoster vad

RZV = recombinant zoster vaccine; ZVL = Dooling KL, et al. MMWR. 2018;67(3).

CME Store

# Efficacy Rates of ZVL and RZV in Preventing HZ and PHN

Preventive Efficacy (Age, y)	ZVL, %	RZV, %
Herpes zoster (50-59)	70	96.6
Herpes zoster (60-69)	64	97.4
Herpes zoster (> 70)	38	97.9
Postherpetic neuralgia (> 50)	65.7	91.2
Postherpetic neuralgia (> 70)	66.8	88.8

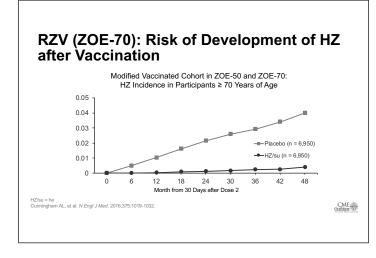
Ilyas S, et al. Open Forum Infectious Diseases. 2020;7(7):ofaa274

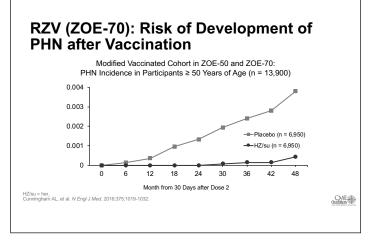
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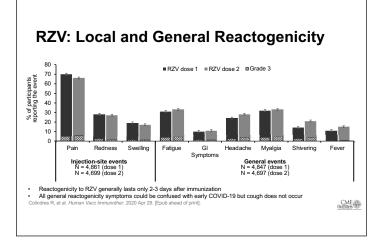
	Pre-specified, pooled a	Placebo	
Age (years)	HZ cases (n)	HZ cases (n)	VE <sub>HZ</sub> (95% CI)*
≥ 501	6 (7,344)	210 (7,415)	<b>97.2%</b> (93.7, 99.0)
≥ 60²	3 (3,852)	123 (3,890)	<b>97.6%</b> (92.7, 99.6)
≥ 701	1 (1,711)	48 (1,724)	<b>97.9%</b> (87.9, 100)

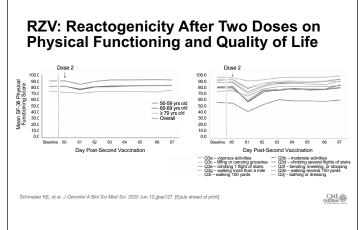
#### Efficacy of RZV: Age Groups ≥ 70 Years of Age

Age (years)	RZV         Placebo           Age (years)         HZ cases (n)         HZ cases (n)					
	HZ					
70–79	19 (6,468)	216 (6,554)	<b>91.3%</b> (86.0, 94.9)			
≥ 80	≥ 80 6 (1,782) 68 (1,792)					
	PHN					
≥ 70	88.8% (68.7, 97.1)					
≥ 50	<b>91.2%</b> (75.9, 97.7)					
Pooled data from ZOE-50 (subjects ≥ 50 years) of age and ZOE-70 (subjects ≥ 70 years of age). Included 16,596 randomized subjects 50 year of age, without immunocompromise, who received a second dose of the vaccine and did not develop a confirmed case of shingles within 1 month after the second dose. Wat and second dose years /p < .0001 for all comparisons, n = number of subjects within each age group. Cunningham AL, et al. N Engl J Med. 2016;375:1019-1032.						









# **RZV** in Subjects with Multiple Morbidities

- Conditions with an increased risk of HZ Systemic lupus erythematosus
  - Rheumatoid arthritis
  - Inflammatory bowel disease
  - Chronic obstructive pulmonary disease/asthma
  - Chronic kidney disease/renal failure
  - Hypertension, diabetes mellitus (type I) Spinal disc herniation/osteoarthritis
- No difference in vaccine efficacy in any of these conditions and even in multiple conditions, up to 6 (~frailty)
- Efficacy and reactogenicity not affected by frailty r 2019-15(12)-2865-2872 : Curran D. et al. J.Am

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# **Pharmacy-Based Vaccination for HZ**

- 73% of community pharmacies now offer immunization services
  - •All states allow pharmacists to administer flu vaccines
- •HZ vaccination certification varies by state
- Critical component to ease accessibility
- Primary care physician collaboration is important

et al. Vaccine. 2019;37(37):5509-5512.; Ecamot F, et al. BMC Public Health. 2019;19:1698

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<ul> <li>Errors in preparation and reconstitution</li> <li>Inappropriate injection site         <ul> <li>Both injections must be intramuscular</li> <li>Ys.</li> </ul> </li> </ul>	positive vaccine ation: records don't show that you've
	Vould you like to get your shingles hile you are here?"
Tavares-Da-Silva F, et al. Vaccine. 2020;38(18);3489-3500.	CMT See

# Working with Vaccine Hesitation

1. Do not dismiss them from your practice

- · Set aside extra time to counsel vaccine-hesitant patients
- Be non-judgemental and non-confrontational
- Discuss the benefits and risks
- · Validate patient concerns and correct misconceptions
- Promise that you're there to help if needed

2. Use presumptive language

- 3. Frame your language optimally
- 4. Be proactive in preventing the pain of vaccinations

CME Street

#### **Recalling Patients for Vaccines Dosed in a Series**

- Give the patient an appointment card/tangible reminder with a specific date to return to clinic for 2<sup>nd</sup> dose before they leave the office/pharmacy
   If the patient fails to make appointment, call the patient to rebook
- Set up automated reminders in electronic health records (EHR) for both patient and provider
- Use recall reminders (e.g., telephone, text, email) one or more days prior to the date to return

CME (1)

#### **Recalling Patients for Vaccines Dosed in a Series**

- •Assess dose completion of series-dosed vaccines at each patient encounter
- Offer vaccines in the late afternoon, evening, and on weekends
- Partner with other providers to complete series (e.g., family medicine office administers dose 1; pharmacist administers dose 2)
- Designate an immunization champion within your practice

Immunization Quality Improvement for Providers. 2020. www.cdc.go

CDC. (IQIP)

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afix/site-visit-answers.html.

# **Takeaway Messages**

- •Ask about vaccine status
- Discuss hesitancy and refusal
- •Implement reminders to ensure 2<sup>nd</sup> dose

# Vaccination turns a common disease into a rare event

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# To Ask a Question

Please click on the *Ask Question* tab and type your question. Please include the faculty member's name if the question is specifically for them.

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To Receive Credit	CME for MIPS Improvement Activity How to Claim this Activity as a CME for MIPS Improvement Activity
To receive CME/CE credit click on the <i>Request Credit</i> tab to complete the post-test and evaluation online.	<ul> <li>Complete activity post-test and evaluation at the link provided</li> <li>Over the next 90 days, actively work to incorporate improvements in your clinical practice from this presentation</li> <li>Complete the follow-up survey from CME Outfitters in</li> </ul>
Be sure to fill in your <b>ABIM ID number</b> and <b>DOB</b> (MM/DD) on the evaluation so we can submit your credit to ABIM.	approximately 3 months CME Outfitters will send you confirmation of your participation to submit to CMS attesting to your completion of a CME for MIPS Improvement Activity
Participants can print their certificate or statement of credit immediately.	



Implementing a Shingles Protocol in Primary Care Settings

Implementing a Shingles Protocol in Pharmacies

Implementing a Shingles Protocol in Specialty Settings

CME Stress

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# **Attendance Form for Groups**

Please complete and FAX to 614.929.3600

Activity Title and Faculty:

# Giving Shingles Immunization Your Best Shot: Implementing a Shingles Vaccination Protocol in Your Practice

with William Schaffner, MD (Moderator); Anthony Cunningham, MD, MBBS; Iris Gorfinkel, MD, CM

Site/Institution Name:						
	ased 🛛 🖵 Hospital		Managed Care	Small Group P	Practice (less than 5)	
Practice Setting: <u>Large Gr</u>	oup Practice (more than 5)	Other:				
Address:						
City:				State:	_ ZIP:	
Site Coordinator:			Phone:			
Fax:		Email:				
Completion Date:	We partici	pated in:				

Attendee Name (please print)				Pleas	e Circl	e Discipl	ine
	MD	DO	PA	NP	RN	Pharm	Other:
	MD	DO	PA	NP	RN	Pharm	Other:
	MD	DO	PA	NP	RN	Pharm	Other:
	MD	DO	PA	NP	RN	Pharm	Other:
	MD	DO	PA	NP	RN	Pharm	Other:
	MD	DO	PA	NP	RN	Pharm	Other:
	MD	DO	PA	NP	RN	Pharm	Other:
	MD	DO	PA	NP	RN	Pharm	Other:
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	MD	DO	PA	NP	RN	Pharm	Other:
	MD	DO	PA	NP	RN	Pharm	Other:

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