USING VACCINATION TECHNOLOGIES

2017 NATIONAL ADULT INFLUENZA IMMUNIZATION SUMMIT
Session:
What's Coming in Adult Vaccines and Vaccinations?
New Technology
& New Vaccines on the Short Term Horizon

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MANAGING THE BUSINESS OF VACCINATION: PROVIDERS

A.B. Forecast demand & Purchase of vaccines

C.D. Storage & management of inventory and associated supplies

E. Billing of and payment for vaccine and vaccination services

G. Quality improvement activities
   To improve vaccination coverage

EHR/IIS

Input data

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2017 National Adult and Influenza Immunization Summit – 5/10/2017
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CDC PRICE LIST


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CODING AND BILLING WEBSITE

https://www.izsummitpartners.org/naiis-workgroups/access-provider-workgroup/coding-and-billing/
BUSINESS SOLUTIONS

• Public and private sector settings
• Across patient age cohorts & geographic settings
• In various practice types including large health systems, private practices, group practices
• **GOAL:** expand accessibility of vaccines to all patients and all health care provider types in all settings to expand immunization services and improve vaccination coverage

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BUSINESS SOLUTIONS

• Supporting the vaccination model: buy, vaccinate and bill (report)

• Automating purchasing, management, dispensing to reduce barriers to vaccinating for practices

• Billing, reporting solutions

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MANUFACTURERS PARTICIPATION

- Hotlines to assist coders – e.g. guidance for claims preparation, appeals, and specific payers’ vaccine coverage and reimbursement policies
- Organizational initiatives (e.g. Group purchasing organizations, Vaccine purchasing groups)
- Flexible Contract Terms and Conditions
  - Extend time for payment
  - On-invoice discounts
  - Incremental discounts based on specified criteria
  - Return policies, etc.
  - Large volume ordering may not be required

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COMPLEMENTARY TO MANUFACTURER OPTIONS, ENTERPRISES EMERGING TO INTEGRATE ASPECTS VACCINE MANAGEMENT FOR PROVIDERS

<table>
<thead>
<tr>
<th>Purchase or Acquisition of Vaccines</th>
<th>Management of Inventory</th>
<th>Billing Services</th>
<th>Data Management</th>
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<tbody>
<tr>
<td>• Placement of vaccine orders on behalf of the provider</td>
<td>• Provision of refrigerator/freezer</td>
<td>• Assessment of revenue forecast</td>
<td>• Capability to integrate with immunization registry systems</td>
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<td>• Systems to track private versus VFC vaccine stock</td>
<td>• Negotiation of insurance contracts</td>
<td>• Compatibility with electronic health record software</td>
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<td>• Management of vaccine expiry (use of inventory by expiry date, returns)</td>
<td>• Set up insurance credentialing</td>
<td>• Compatibility with practice management software</td>
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<td>• Screening for insurance eligibility</td>
<td>• System generated patient reminders</td>
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<td>• Direct submission of claims to insurers</td>
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<td>• Potential to receive negotiated administrative fee</td>
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Slide from Quinn: Third Immunization Congress 2016: Financing across the lifespan (April 2016)
VACCINE TECHNOLOGIES

• Multiple carrier systems
  – Liposomes, microspheres, nanoparticles
  – Control how antigen is presented to immune system
to allow for sustained release, cellular targeting
• Needle-free patch
  – Dendritic cells engaged to present antigen deliveredby microneedles of sugar which dissolve
• Inhaled and oral vaccines
  – Delivery of antigen into lungs – pulmonary immune
    response; Or into gut - engaging GALT
  – Would mimic entry of many pathogens
  – Also potential engagement of mucosal immunity
FUTURE OF VACCINE DELIVERY METHODS

• Microneedle arrays
  – Also engaging dendritic cells in the skin
  – Arrays (patches) of microneedles less than 1mm long

• Transcutaneous immunization (TCI)
  – Again, trying to engage skin associated immune cells
  – Techniques to create abrasions in the skin where the antigen would be introduced

• Adjuvants matter – making a difference in vaccine design

SMART REFRIGERATION

• These are purpose-built, pharmaceutical-grade vaccine storage and management systems
  – More than just a freezer or refrigerator
  – May have design features (e.g. door-less) to ensure temperature stability, even during heavy, continuous use
  – Have integrated temperature monitoring, recording, alerting
  – May allow for precise inventory management, such as automatic stock rotation, real time stock levels, alerts for low stock or near-expiry stock, etc.
  – Allows for EHR integration - saves time and eliminates transcription and billing errors
  – May feature automatic back-up in case of main power outage
MANY THANKS

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