

Avalon Laboratory Benefits Management Program

November 6, 2015

Avalon is an independent company that provides benefit management services on behalf of BlueCross BlueShield of South Carolina and BlueChoice® HealthPlan.



Independent licensees of the Blue Cross and Blue Shield Association

Lab Market

Clinical laboratory testing is a meaningful challenge for health care

- Over 4,000 different lab tests exist, and the menu continues to increase in size, complexity, and cost
- Over 9 billion tests are performed each year, more than any other health care procedure
- Lab tests are the basis for at least 70% of clinical decisions
- 30% of volume represents overused or medically unnecessary testing, and not ordering a test when clinically appropriate may reach the same level
- Nearly 3 in 4 physicians say unnecessary tests represent a serious problem
- Over 4 years, the mean number of hours spent teaching medical students about test selection and the interpretation of results is about 10 hours – for many it is less than 5 hours
- Primary care physicians are uncertain about the appropriate test to order in 15% of diagnostic encounters and uncertain about interpretation of results in 8% of cases
 - With 500 million primary care patient visits per year, that means 23 million times a year a primary care physician is uncertain about the appropriate use of a diagnostic test
- Between 15% and 54% of medical errors reported by primary care doctors are related to testing

***High volume, high complexity, and rapid innovation –
all are challenges for physicians and payers***

Sources: various studies and Avalon analyses.

The Ripple Effect of Lab Testing

Spectrum of Influence

Avoidance of follow-up care

- **PSA:** 80% of positive PSA test results are false-positives; one-third of prostate biopsies results in complications; 1% result in hospitalizations; 1 man in 3,000 die prematurely from the related hospitalization
- **Coagulation screening:** PT/PTT is frequently overused pre-op screening test; false positives often result in much more expensive tests (Factor 8 level, Lupus inhibitor testing)
- **PAP:** Abnormalities can result in unnecessary colposcopies, endometrial biopsies and cervicectomies, resulting in \$1B+ in avoidable cost annually

Targeted testing

- **Chlamydia screening:** Untreated infection of this asymptomatic STI can lead to PID, hospitalization, and is a primary cause of infertility
- **Lipid tests in high-risk populations:** High-risk patients with no lipid profile tests in LTM were 2x more likely to die from cardiovascular disease than those with >2 lipid profiles in LTM
- **BRCA1 testing:** Underutilization of BRCA in select populations
- **Hba1c monitoring:** Insufficient use of HbA1c threshold to identify and manage pre-diabetics and avoid disease progression

Specialty pharmacy optimization

- **Colorectal cancer therapeutics:** Cetuximab effective in 20-50% of patients with wild-type KRA gene, 0% of patients with mutated KRAS gene; cost of therapy ~\$80K per patient, \$450 for diagnostic
- **Effient effectiveness:** Evaluation of patients to identify extensive metabolizers prior to implementation of drug regime (with significant downstream efficiencies through avoidance of ER visits due to ADEs)
- **Cystic fibrosis targeting:** Approval of Vertex pharmaceutical for treatment of CF in patients with specific regulator gene mutation

Appropriate lab testing improves health care outcomes and affordability

Source: USTSF; Journal of Medical Genetics, 2011; Journal of Diabetes Care, 2003; NCC, 2012; College of American Pathologists, 2000; Clinical Chemistry, 2012; Health Leaders, 2012; Journal of Medical Screening, 2003; Feinberg School of Medicine, 2011

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AVALON
HEALTHCARE SOLUTIONS

Avalon Healthcare Solutions – Who we are

- *Avalon is a clinical services and information technology company providing comprehensive diagnostic laboratory management services to health plans*
- *Avalon uses the latest evidence-based medicine to support robust laboratory-related medical policies*
- *Avalon's program is a compliant and reliable extension of BlueCross BlueShield of South Carolina's medical management program*

... and what we bring

- ***Medical Policy** - Continuing evaluation of industry developments resulting in creation of new medical policies or revisions to existing policies*
- ***Network** - Dedicated to ensuring that patients receive high quality, cost effective laboratory testing*
- ***Analytics** - Supported by lab values that enhance member quality of care*
- ***Member Focus** – Access to high quality, cost effective laboratory services*

Avalon Healthcare Solutions

Industry Problems

Rapid escalation of lab test innovation

Market experiencing increased utilization and costs

Lab management not primary area of resource and technology deployment

Industry facing increasing medical and administrative cost challenges



Leading-edge proactive and expert driven lab medical policy development

Improve access and affordability

Enhance clinical outcomes and quality

Complex claims editor to optimize lab test utilization

Avalon Solution

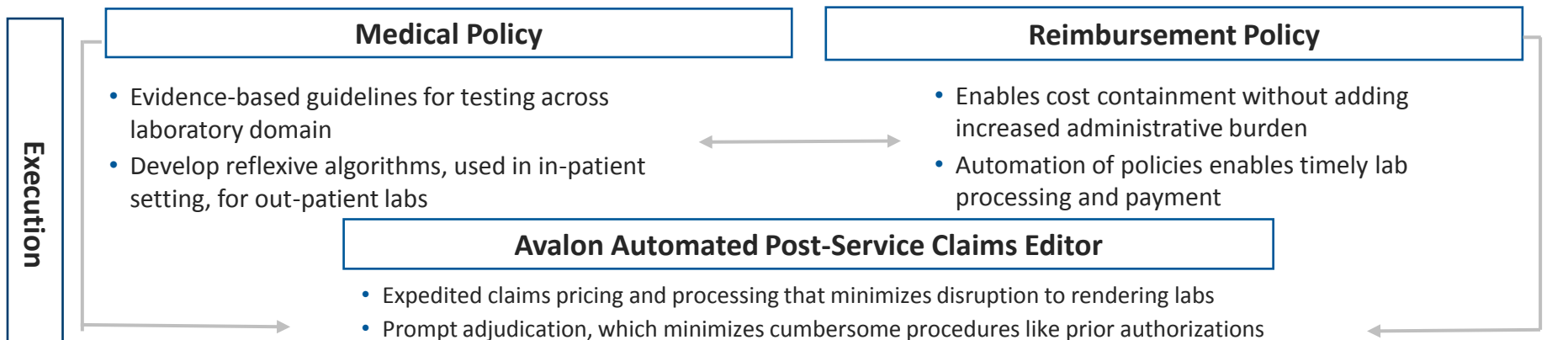
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Medical Management

Avalon medical management represents the leading thinking in the sector with respect to effective lab policy

Clinical Advisory Board	
Expertise	<p>Dr. Geoffrey S Baird, MD, PhD – Chair <i>Professional Experience:</i></p> <ul style="list-style-type: none"> • Practicing Pathologist • Director of Clinical Chemistry at Harborview Medical Center, Seattle • Laboratory Medical Director at Northwest Hospital and Airlift Northwest • Associate Professor of Laboratory Medicine and Adjunct Associate Professor of Pathology at the University of Washington <p><i>Clinical Interests:</i> Molecular diagnostics, clinical analytics, and rational utilization of lab testing</p>
	<p>Dr. Christopher Tormey, MD <i>Professional Experience:</i></p> <ul style="list-style-type: none"> • Assistant Professor of Laboratory Medicine and Molecular Biophysics and Biochemistry at Yale University • Lecturer in Molecular Biophysics and Biochemistry • Director of Transfusion Medicine Fellowship <p><i>Clinical Interests:</i> Transfusion medicine</p>
	<p>Dr. Timothy Hamill, MD <i>Professional Experience:</i></p> <ul style="list-style-type: none"> • Vice Chair, Laboratory Medicine, University of California, San Francisco • Director, UCSF Clinical Laboratories <p><i>Clinical Interests:</i> Clinical pathology and hematopathology</p>
	<p>Dr. Brian Smith, MD <i>Professional Experience:</i></p> <ul style="list-style-type: none"> • Professor and Chair of Laboratory Medicine; Professor of Biomedical Engineering, Medicine (Hematology), Pediatrics at Yale School of Medicine • Chief of Laboratories at Yale New Haven Hospital, New Haven, CT <p><i>Clinical Interests:</i> Hematopathology, optimal utilization of state-of-the-art laboratory diagnostics</p>



Avalon Medical Policy Approach

Avalon supports the development and administration of medical policy to document the applicability for coverage of laboratory testing procedures

- Medical policies provide the foundation for:
 - Medical necessity decision-making process
 - Promoting objectivity and consistency
 - Establishing valid rules-based design to the claims adjudication system
- Avalon's medical policy administration services:
 - Account for specimen collection and/or processing in the following places of service (POS) locations:
 - Independent Laboratory (POS 81)
 - Outpatient Hospital (POS 22,19)
 - Doctor's Office (POS 11)
 - Provide for no less than three evidenced-based reference sources, accessed from professional medical societies of the ordering physician, Blue Cross and Blue Shield Association Technology Evaluation Center (TEC), government groups (such as NCCN), and other commercial policy
 - Are current, with scientific references used to support the policy stance being no greater than five (5) years from publication date, with two (2) years preferred

Medical Policy Administration

Evaluation

- Clinically-driven evaluation of over 1,200 codes in health plan data
- Top codes routinely account for nearly two thirds of health plan volume
- Apply information from clinical practice trends, peer-reviewed publications, professional society guidelines, etc.



Policy Creation

- Created clinical and evidence-based rules for top codes
- Medical policies developed and evaluated with health plan
- Medical policy is the foundation of Avalon's program and underpins all programs



Policy Management

- Claim payment integration with health plan's claim system
- Evaluate claims against health plan's laboratory medical policy
- Support and promote provider education initiatives

Avalon proactively identifies new lab tests and employs repeatable processes to develop evidence-based medical policy and automated claim reviews to enforce that policy

Prior Authorization in Support of Medical Policy

Avalon aspires to leverage our technology to minimize prior authorization requirements and increase physician satisfaction. In doing so, we are able to focus on:

- Automated enforcement of medical policy through claim edits supported by advances in coding specificity (i.e., ICD – 10), and access to clinical lab values providing reduced dependency upon Prior Authorization (PA)
- Complexity of some testing (i.e., Molecular) currently requires accumulation of clinical information
- Situations that endorse PA
 - Provider education
 - Medical policy
 - New technology
 - Fraud, waste and abuse identification/prevention

Application of Medical Policy: Prior Authorization

- BlueCross medical policies define tests at the CPT code level that:
 - Require prior authorization
 - Are covered without prior authorization
 - Are not covered
- Medical policies containing prior authorization elements:

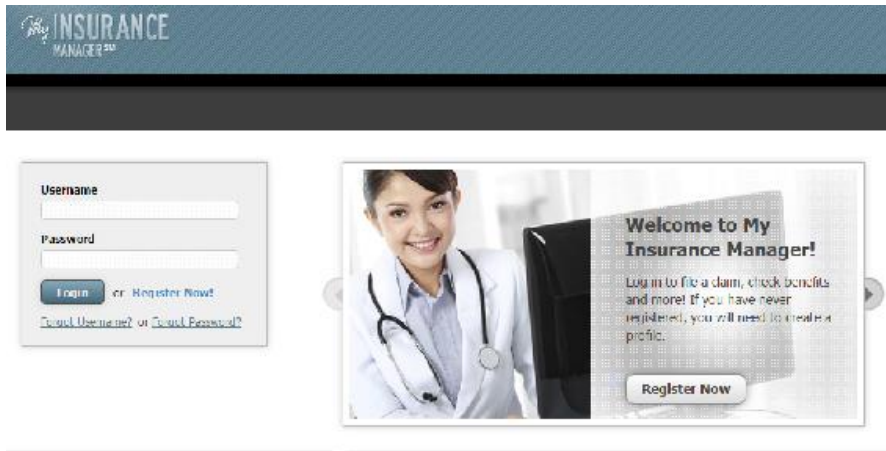
BCR-ABL 1 Testing for Chronic Myeloid Leukemia	BRCA	Cardiac Ion Channelopathies	Chromosomal Microarray
Cytochrome P450	Epidermal Growth Factor Receptor	Familial Adenomatous Polyposis	Flow Cytometry
FLT3 and NPM1 Mutation	General Genetic Testing	Genetic Testing for Cystic Fibrosis	HIV Genotyping and Phenotyping
JAK2 and MPL Mutation	KRAS and BRAF	Li-Fraumeni Syndrome	Lynch Syndrome
Non-invasive Prenatal Screening for Aneuploidy	Pre-implantation Genetic Testing	Prenatal Screening	PTEN Hamartoma Tumor Syndrome

- The full component of medical policies can be accessed at:

<http://web.SouthCarolinaBlues.com/providers/educationcenter/medicalpoliciesandclinicalguidelines.aspx>

Avalon Prior Authorization (PA) Operations

Avalon's utilization management staff are available Mon-Fri, 8:00am to 8:00pm EST



Avalon's PA program is structured to operate consistently within the standards developed by CMS, URAC and NCQA

- Avalon will either approve, deny or request the specific clinical documentation necessary to complete the review
- Approvals and requests for additional information will be communicated to the requesting providers office
- Any adverse determinations will be verbally delivered in addition to the written letter sent to the member with copies to the ordering physician
- If additional information cited in an adverse determination notice is obtained pre-service, Avalon will review your request to see if the additional information meets criteria
- Member appeals will follow the existing BlueCross process

PA requests may be sent to Avalon effective January 1, 2016

- Phone: 1-844-227-5769
- Fax: 1-888-791-2181
- Via BlueCross' My Insurance ManagerSM on www.SouthCarolinaBlues.com.
 - Automated PA processing available 4/1/2016 via a connection to the Avalon provider portal

Case Study 1: Drive appropriate testing in AP

Surgical pathology profile

Clinical and reimbursement context

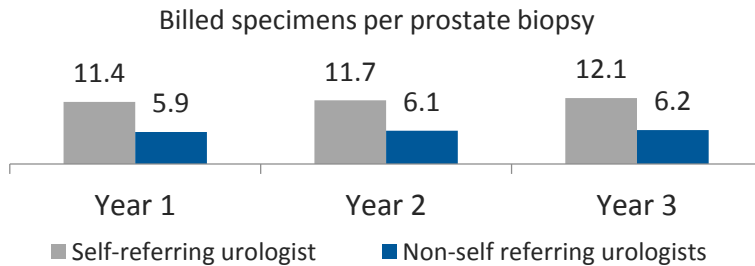
- 88305 often represents 10 – 15% of total health plan lab spend
- Unit of service is specimen rather than actual piece of tissue
- 31% of surg path billed in-office (or pod) labs (POS:11) with 43% coming from POS 22 and 25% coming from POS 81
- Commercials labs less predominant here than specialty AP labs

Prostate biopsies

- 48% of spend billed in-office (POS:11) and 35% from POS 81
- 89% of cost of all high-unit billing (10+ units) for 88305 is due to prostate biopsies

Self-referral differential

- Recent study indicates delta between number of specimens per biopsy across referral type

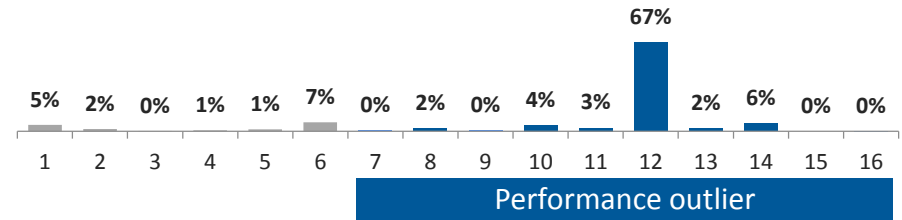


Prostate biopsy overview

Rules-based reimbursement

- Clinical evidence supports conditional cap of six units of specimens per prostate biopsy
- Precedent for this rule exists: Health plans deny reimbursement for 12-unit billing for prostate cores

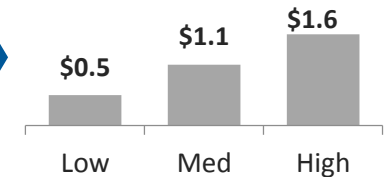
Distribution by units billed



Utilization Management

- Intervention: prostate biopsy caps of 6 units
- Manage performance across all places of service

Annual Waste (\$MM)



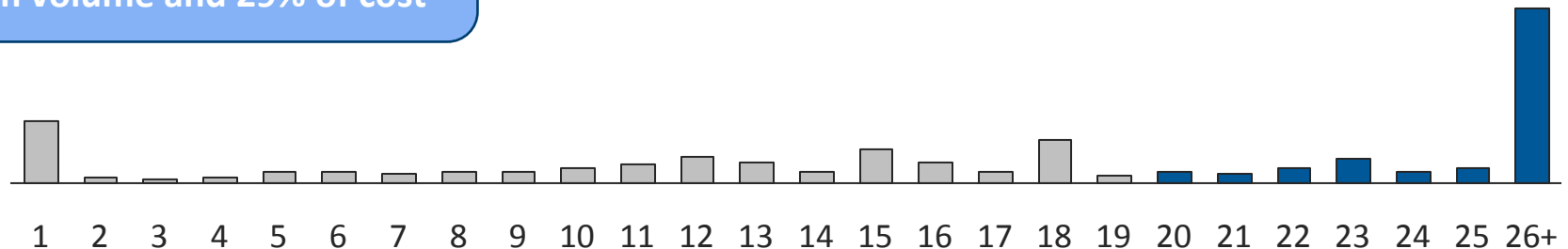
Case Study 2: Managing appropriate use of allergy testing

Domain review

- IgE allergy testing is medically necessary in many cases
- Tests are performed to check for allergies to specific allergens
- Tests are often ordered in large panels that include a variety of antibody-specific variants or units
- Panels consisting of 30-50+ units are clinically unjustifiable

Panels with more than 25 analytes account for 13% of claim volume and 29% of cost

Allergy screen panelization Analytes per panel



Case Study 3: Facilitating appropriate testing in the molecular domain

- Testing algorithms in molecular testing start with evaluation of more common (high pre-test probability) mutations, before proceeding through exclusion or inclusion to evaluation of less common mutations
- Genetic tests today typically require physicians to order bundled genetic panels that test for both common and highly uncommon mutations together

Representative applications of reflexive testing within the molecular domain

Condition	Current standard testing process	Reflexive approach	Efficiency Opportunity
CMT neuropathy	<ul style="list-style-type: none"> • Evaluates PMP22, MPZ, CMTX genes 	<ul style="list-style-type: none"> • Test for PMP22 mutation (70% of cases) • Then test for other mutations 	77%
Friedrich's ataxia	<ul style="list-style-type: none"> • Evaluates both homozygous triplet repeats and point mutations 	<ul style="list-style-type: none"> • Test for triplet repeats (96% of cases) • Then test for point mutations 	43%
Spino-cerebellar ataxia	<ul style="list-style-type: none"> • Evaluates gene mutations for all 20 sub-types of disease 	<ul style="list-style-type: none"> • First test for SCA1,2,3,6,7 • Then test for other exceedingly rare mutations 	40%
EGFR mutation	<ul style="list-style-type: none"> • Screening of all areas of gene to evaluate mutation • Commonly used to evaluate therapeutic match 	<ul style="list-style-type: none"> • Testing with targeted assays for deletions in exon 19 or L858R mutations in exon 21 (90% of testing) 	45%
Myelo-proliferative diseases	<ul style="list-style-type: none"> • Testing for rarer causal gene responsible for subset of diseases alongside more common point mutation 	<ul style="list-style-type: none"> • Test for point mutation JAK2 V617F first with cheaper directed test • Then test for exons 12/13, then MPL mutations 	51%

Provider Management

Avalon thoughtfully collaborates with health plans to build a customized program that combines performance management, Centers of Excellence, and contracting scale

Performance Management

- Promote transparency among lab network providers to improve quality
- Avalon educates providers on medical policy to ensure understanding and compliance
- Information used to assure right test is performed by the right lab

Centers of Excellence

- Academic, evidence-based lab medicine
- Clinical consultation is available with pathologists and genetic counselors
- Bridge to local hospital laboratories

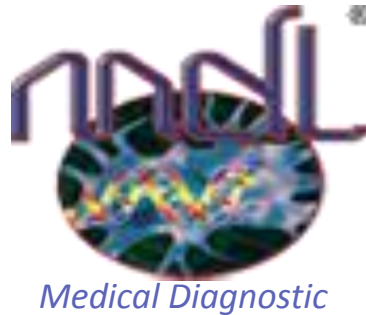
Operational Scale

- Accumulate covered lives to promote consistency in cost and quality
- Drive acceptance of evidence-based medicine and adherence to medical policy protocols

Avalon aligns lab providers to medical policy and ultimately the goals of the health plan and its members through its provider management program

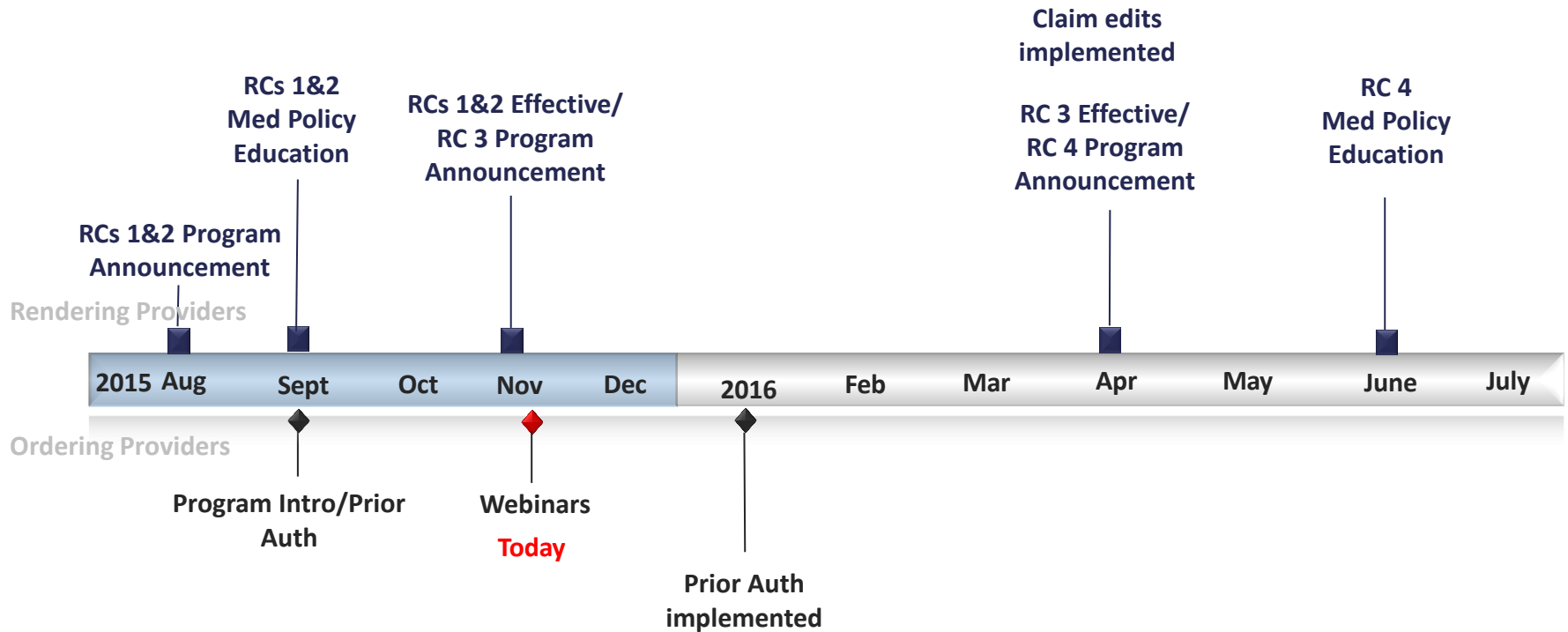
Avalon Network Recruitment

Physicians and members will enjoy expanded access to select specialty lab providers through the Avalon network of labs.



The Avalon network of labs is offered as a supplement to the current BlueCross network. A comprehensive directory of laboratories participating in the BlueCross network is available on the BlueCross website.

Avalon / BlueCross Implementation



Key Points:

- Avalon was engaged by BlueCross to provide comprehensive laboratory benefits management services
- The new group of providers were added to the network to increase access to specialized testing
- All new and currently contracted providers, including LabCorp, Quest, and other large labs, are listed in the BlueCross directory
- Any future changes to the laboratory network will be communicated to the provider community as they occur

Avalon Provider Education: Distribution Channels

- Webinars (2)
 - Introduction to Avalon and the Medical Policy Program
 - Direct peer presentation with Q&A
- Network Provider Representative
 - Plan representative or collaboration with Avalon network resource
- Newsletter
 - Plan newsletter and Avalon portal
- BlueCross provider manual
 - Information about the Avalon program to be included in the BlueCross provider manual

BlueNews™
for Providers



May 2015

2015 Palmetto Provider Webinar
Schedule

Healthcare Effectiveness Data and
Information Set (HEDIS®) Measure
Focus on Annual Monitoring for
Persistent Medications



Healthy Focus: Adolescent Health Month 2015

This May, BlueCross BlueShield of South Carolina is promoting child, tween and teen health. The Physical Activity Guidelines for Americans that the U.S. Department of Health and Human Services (DHHS) issues recommend that children and adolescents ages 6-17 years should have one hour or more of physical activity each day. DHHS is an independent organization that provides health information on behalf of BlueCross. Children and adolescents should have aerobic, muscle strengthening or bone strengthening exercise as part of a daily physical activity. It is important to encourage young people to participate in physical activities that are appropriate for their age, that are enjoyable and that offer variety.

The Centers for Disease Control and Prevention (CDC) offers additional information about adolescent and school health at www.cdc.gov/healthyyouth/physicalactivity/guidelines.htm. The CDC is an independent organization that provides health information on behalf of BlueCross. (This link leads to a third party site. That company is solely responsible for the contents and privacy policies on its site.)

We Want to Hear from You!

We are committed to monitoring the quality of the services, presentations and materials we provide as part of an ongoing improvement process. When you receive our emailed requests to complete an evaluation, please follow the link provided. It's the perfect opportunity to tell us how we are doing as your representatives for Provider Relations and Education. We greatly appreciate your feedback on



Because it matters how you're treated.

2013 Benefit Update Meeting

Presented by:
Provider Education and Relations

Note: Contents are subject to change and are not a guarantee of payment.

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