SIEMENS

siemens.com/ct-acute-care

Get further. With the CT Acute Care Engine.

Driving progress with quick and comprehensive trauma diagnosis

"Get further"
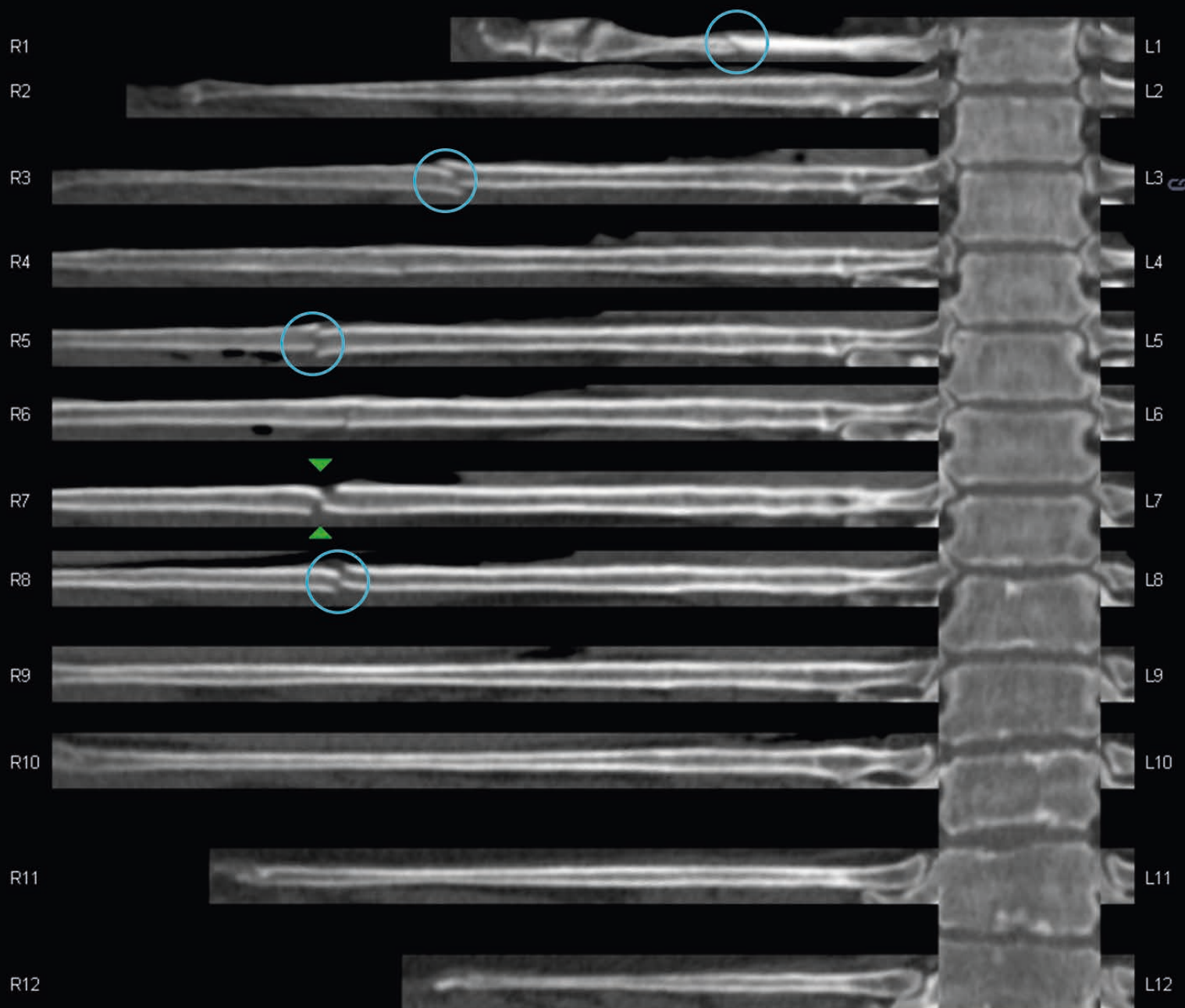# VS. "Staying at the same level"

Second best is not an option

Get further with your CT.

Medical progress never happens by simply maintaining the status quo. Year after year, the CT Clinical Engines enhanced your clinical capabilities by providing better diagnostic confidence and improving process efficiency by saving working steps and making your entire patient pathway even faster.

Provide quick and comprehensive trauma diagnosis – by speeding up your reading efficiency with automated bone reading with the 2015 Edition. Several automated applications facilitate your diagnosis and treatment when time is tight. *syngo*.CT Bone Reading is custom-tailored for the assessment and labeling of ribs and spine in trauma cases and let you to speed up your reading efficiency.

Driving progress with quick and comprehensive trauma diagnosis.

R1 · R2 · R3 · R4 · R5 · R6 · R7 · R8 · R9 · R10 · R11 · R12

L1 · L2 · L3 · L4 · L5 · L6 · L7 · L8 · L9 · L10 · L11 · L12

Fast rib and spine assessment

in multiple trauma cases

Courtesy of Department of Clinical Radiology, University Hospital Münster, Germany

Comprehensive diagnosis in situations where time is tight

Speed up reading efficiency and provide quick and comprehensive trauma diagnosis

syngo.CT Bone Reading[1] – including Spine CAD[2]

Multiple trauma cases with suspected injuries to the thorax and spine call for a complete evaluation of the ribs and vertebral bodies to assess possible fractures. Simply scrolling through axial slices and trying to maintain a focus on the areas of interest can be very time-consuming because of the ribs' oblique orientation. Missing possible fractures, especially those affecting the spine, may require an unnecessary repeat of an interventional procedure.

syngo.CT Bone Reading revolutionizes rib and spine assessment. The application identifies and labels the ribs, and displays the entire rib cage rolled on a 2D planar reformat. In addition, the vertebral bodies are tagged and the spine is presented in a stretched view

for a straightforward overview of the anatomy. The Automatic Pre-Processing function performs these steps for you and has the case ready for review when opened.

The planar display of the rib cage and spine facilitates the direct detection of lesions. Fractures can now be spotted and assessed immediately, saving precious minutes in situations where time is tight. With Spine CAD[2], we offer a second-reader support for the even easier detection of traumatic spine lesions.

Opt for a new method of reading that's as simple as it is effective. *syngo*.CT Bone Reading – for increased speed in bone assessment.

6

[1] Optional
[2] Not commercially available in the US

Unparalleled speed when time is of the essence
SOMATOM Definition Edge and *syngo*.CT Bone Reading

In acute care scenarios, unconscious or severely injured patients must be scanned and evaluated quickly. Here the "golden hour" for diagnosis mandates precise localization and identification of critical injuries. Therefore, one of the most challenging demands is to provide high acquisition speed without compromising spatial resolution.

SOMATOM Definition Edge with the Stellar Detector is in a class of its own. The new level of image detail – with a routine spatial resolution of up to 0.30 mm provided by the Stellar detector – allows visualization of very discrete fractures or lesions. In addition, with the STRATON tube and specially – designed patient table, this high

spatial resolution is achievable even at acquisition speeds of up to 230 mm/s. This takes motion out of the equation, increasing the diagnostic reliability in crucial cases like acute care patients.

By combining the strengths of SOMATOM Definition Edge and *syngo*.CT Bone Reading, Siemens offers a fast and reliable basis for tackling the challenges of the acute care setting.
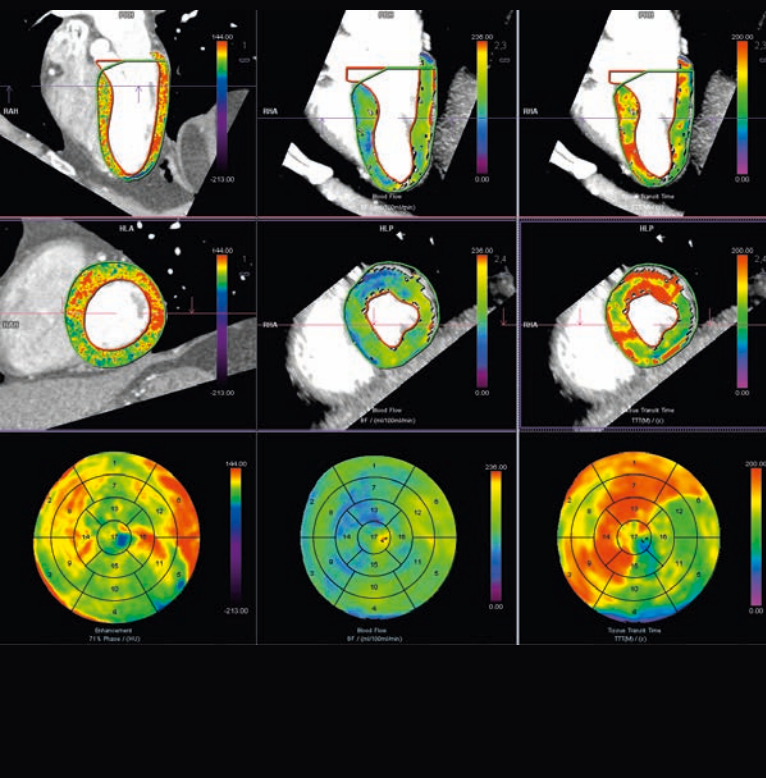
syngo.CT Cardiac Function – Enhancement[1]

syngo.CT Rapid Stent Planning[1]

Life-saving decisions, when every second counts

New: Evaluate the full spectrum of myocardial perfusion for a thorough assessment of hemo-dynamic relevance
syngo.CT Cardiac Function – Enhancement[1]

A simple first-pass enhancement scan may not yield the decisive information necessary to determine the hemodynamic relevance of an intermediate stenosis. Sub-optimal scan timing can decrease the attenuation difference between healthy and diseased myocardium, and a quantitative assessment of a potential perfusion defect is not possible.

The new Perfusion Evaluation task enables the simulta-neous assessment of Dual Energy and quantitative dynamic myocardial perfusion data.[3] Additional clinical benefits are introduced with the quantification of iodine concentration in the myocardium as well as the inspection of quantitative blood flow and volume data. The visualization in AHA-compliant 17-segment polar maps and a direct overlay in MPR segments help to pinpoint the perfusion defect.

Automatic completion of manufacturer-specific graft order forms
*syngo*.CT Rapid Stent Planning[1]

Pre-procedural planning for the treatment of abdominal and thoracic aortic aneurysms requires a precise assessment of several anatomical parameters. Numerous vendors offer various stent grafts, each of which requires its own set of measurements. Manually completing graft order forms can be tedious and time-consuming.

The new *syngo*.CT Rapid Stent Planning features the automatic completion of manufacturer-specific stent order forms. This optional extension makes effective use of the unique Rapid Results Technology: Protocols guide the user through all length and diameter measurements, which are then automatically stored in the corresponding order form. At delivery, *syngo*.CT Rapid Stent Planning provides three order forms: Gore Excluder, Zenith Flex, and Medtronic Endurant in PDF format. In addition, new order form templates can be generated to match the requirements of other vendors.[2]
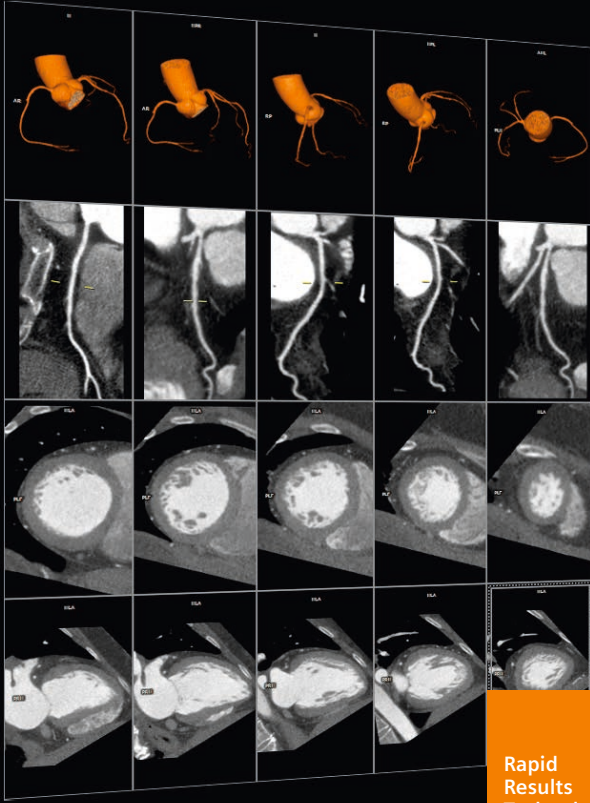
Rapid Results Technology
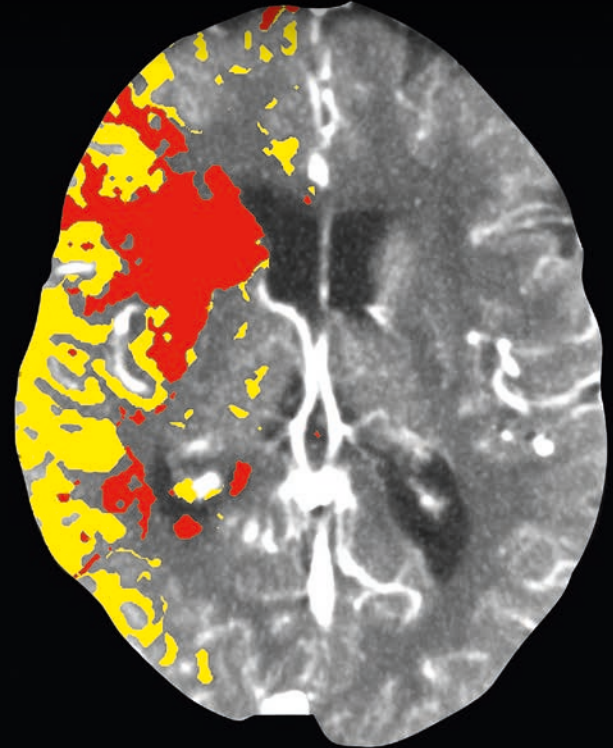
syngo.CT Neuro Perfusion

Standardize and automate image creation for reproducible results and efficient reading
Rapid Results Technology

When assessing coronary artery disease, the manual preparation of reformats and visualizations of the coronary vessels is time-consuming and rarely standardized. With Rapid Results Technology (RRT) you can automatically generate visualizations of the coronary and general vessels in various types and orientations. Design your own protocols that best suit your daily work. Save time for reading other cases by letting RRT create just the right amount of information – standardized and reproducible. With the new edition, RRT enables you to send the results of your executed protocols directly to your PACS without any further effort.

Quantitative evaluation of dynamic CT data
syngo.CT Neuro Perfusion

In acute stroke, it can be challenging to differentiate the core infarct from tissue at risk for infarction (penumbra). This is important, however, because the latter is potentially salvageable with further therapy. With a range of unique features, *syngo*.CT Neuro Perfusion helps you easily assess the potential treatment benefits. It visualizes tissue at risk in 3D color maps based on the mismatch between cerebral blood volume and cerebral blood flow. You can also select individual mismatch parameters such as Siemens' unique Time-To-Drain parameter. Refined algorithms offer automated gray matter segmentation so that you can immediately focus on the relevant tissues.

Your benefits at a glance

- Increase process efficiency by completing manu-facturer-specific graft order forms automatically
- Enhance patient outcome by evaluating the full spectrum of myocardial perfusion
- Standardize quality of care by automatizing image creation of coronary and general vessels
- Enhance patient outcome with a quantitative evaluation of dynamic CT data
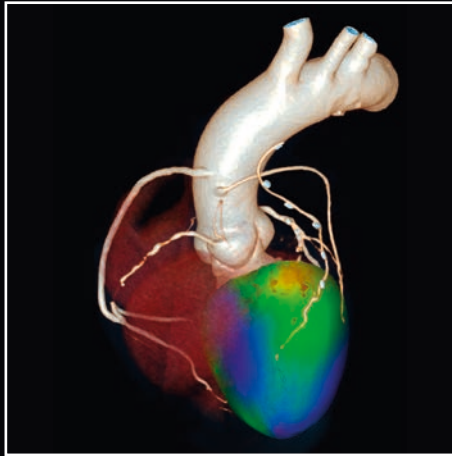
[1] Optional [2] Adobe Acrobat Professional required
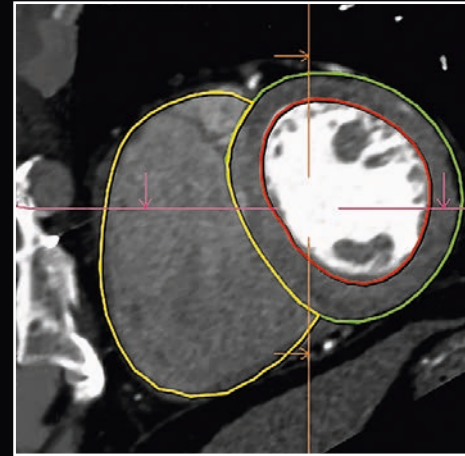[3] *syngo*.CT DE Heart PBV and/or *syngo*.CT Myocardial Perfusion required
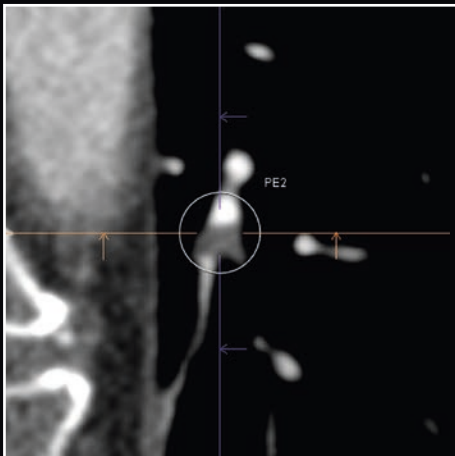
Get further – with our
CT Acute Care Engine
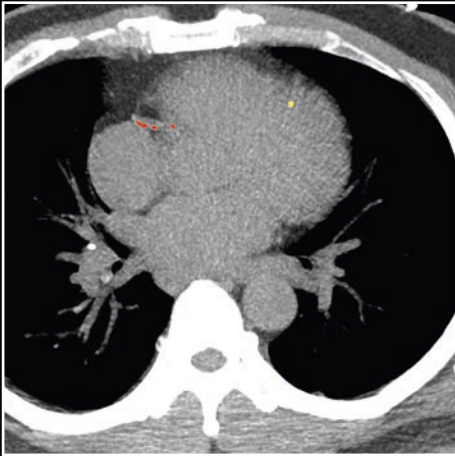
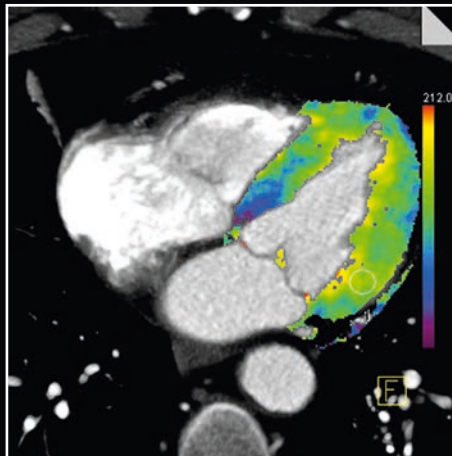**Quick risk assessment and coronary age calculation**
syngo.CT CaScoring

Comprehensive global and local left ventricular analysis
syngo.CT Cardiac Function

Right ventricular analysis – even with MinDose data
syngo.CT Cardiac Function – Right Ventricular Analysis[1]

Automatic detection of pulmonary filling defects
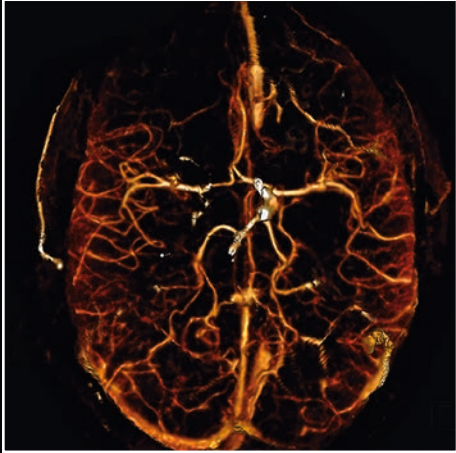*syngo*.CT PE CAD[2]

Dynamic quantitative myocardial perfusion assessment
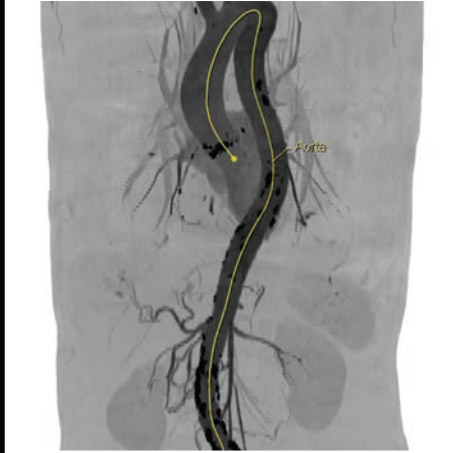*syngo*.CT Myocardial Perfusion

Detailed visualization of the cerebral vasculature
syngo.CT Neuro DSA

and optional applications

Dynamic vessel evaluation
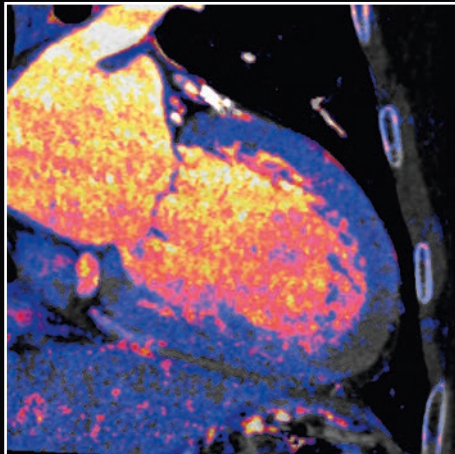*syngo*.CT Dynamic Angio[1]

Zero-click tracing of the main general vessels
syngo.CT Vascular Analysis – Autotracer[1]

Accurate bone removal with Dual Energy
syngo.CT DE Direct Angio[1]

Rule out coronary artery disease in less than one minute
syngo.CT Coronary Analysis

Quantification of myocardial iodine uptake with Dual Energy
syngo.CT DE Heart PBV[1]

[1] Optional
[2] Optional and not commercially available in the U.S.

In the event that upgrades require FDA approval, Siemens cannot predict whether or when the FDA will issue its approval. Therefore, if regulatory clearance is obtained and is applicable to this package, it will be made available according to the terms of this offer.
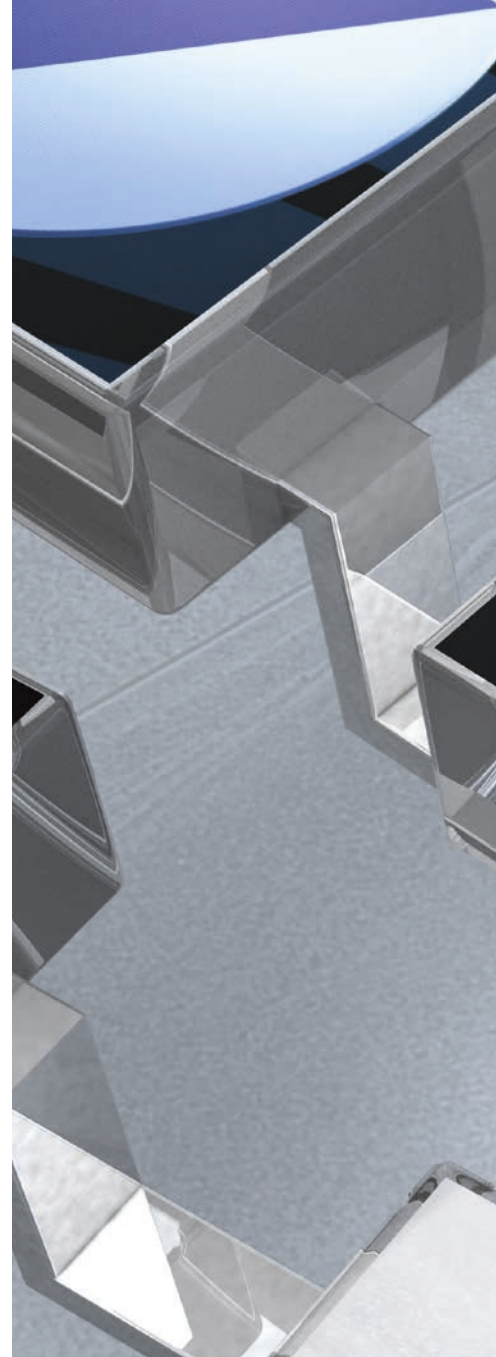
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