

# INGENIX<sup>®</sup>

## What are ETG<sup>®</sup>s?

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## Defining Episode Treatment Groups

Identifying clinical episodes of illness and the services involved in their diagnosis, management, and treatment have become a key business need of any health care organization. Purchasers, consumers, and patients seek greater transparency into the cost, quality, and service of health care delivery. Episodes of care provide a valuable unit of analysis to support transparency, measure health care and provide incentives for increased value and high quality care.

Episode Treatment Groups®(ETG) are an illness classification methodology. ETGs were introduced to the market in the mid-1990's and are now widely used for building episodes of care. Such measurements rely on accurate and valid definitions of a disease and the services related to a clinical condition. By combining related services into clinically homogenous units that describe complete episodes of care, ETGs may be utilized to provide the basis of valid comparisons. ETGs create episodes by collecting all inpatient, outpatient, and ancillary services into mutually exclusive and exhaustive categories. The medical consistency within ETGs contribute to treatment decisions, as the groupings are meaningful to all care providers. At the patient level, ETGs recognize co-morbidities, complications, and treatments that dramatically change the patient's clinical profile, health care utilization, and costs. ETGs enable powerful and accurate case mix adjustment. ETGs cover the breadth of clinical medicine; they measure and compile both acute and chronic conditions.

ETGs use information routinely collected on the claims submitted by physicians, hospitals and other providers and reimbursed by healthcare organizations. These claims describe services delivered in both an inpatient and outpatient setting and include medical and pharmaceutical services. These claims also describe a patient's underlying clinical conditions related to the service and their complications and co-morbidities. The ETG methodology captures the relevant services provided during the course of a member's treatment, and organizes these services into meaningful episodes of care. ETGs assign a unique group (an episode treatment group) and severity level to

these episodes reflecting the primary clinical condition for the episode and the complications and co-morbidities that impact treatment.

## Applications for ETG

ETGs are designed to provide a consistent and reliable unit of analysis to support measurement of the provision and financing of health care services. Because ETGs are intuitive and adjust for clinical severity, care management and measurement organizations can utilize them in diverse applications integral to the success of clinicians, health care researchers, and administrators. ETGs can serve as:

- An analytic unit for measuring and comparing healthcare providers based on the cost of treating patient episodes;
- A clinically useful unit for measuring health care demand, including the prevalence of clinical conditions and the services and costs involved in their treatment;
- A basis for establishing disease management strategies, including tracking organizational performance and trends around specific diseases and episodes; and
- A basis for understanding how medical treatments compare with treatment guidelines and protocols

In any of these applications, clinical and resource homogeneity are critical. ETGs are designed to be clinically homogeneous, which means each member's illness and severity are medically consistent with others belonging to the same ETG — allowing providers and organizations to relate to the illness groupings, allowing for meaningful communication regarding treatment and improvement. ETGs have also been developed to account for differences in the expected resources required to treat an episode of care. A key component of this approach involves measurement of episode severity, reflecting the complexity of the patient and episode, including complications and co-morbidities. Episode severity supports case mix adjustment allowing more valid comparisons across patients, episodes and providers.

## The ETG Approach

ETGs are a basic condition classification methodology that combines related services into a medically relevant unit describing a complete episode of care. An ETG episode of care is the unique occurrence of a medical condition or disease and the health care services involved in diagnosing and managing their treatment.

The key features of ETGs are clusters, anchor records, and ancillary records. Other than the individual service, the cluster is the basic unit of an episode. For example, consider a patient with a condition requiring a series of diagnostic tests. The patient's initial encounter is an office visit with a physician who diagnoses the illness and subsequently orders laboratory and other tests to confirm the diagnosis. ETGs link these related services to form a cluster. ETGs then combine clinically homogeneous clusters to create episodes of care.

ETGs create episode clusters using anchor records. Anchor records represent services provided by a clinician engaging in the direct evaluation, management, or treatment of a patient. Office visits, inpatient stays, therapies, and surgical procedures are examples. An anchor record indicates that a clinician has evaluated a patient's illness and has decided on the types of services required to further identify and treat the patient's condition.

Ancillary records are services that are incidental to the direct evaluation, management, and treatment of a patient – for example, x-rays, pharmaceuticals, and lab tests. Each ancillary record links to only one anchor record, based on the type of provider, the nature of the service performed, and the diagnoses assigned.

After assigning anchor and ancillary services to clusters, ETGs group clusters into episodes based on a series of rules; the diagnoses and procedures found on medical claims; and the drug treatments included on pharmacy claims. To do this, ETGs categorize diagnoses as primary, incidental, complicating, or comorbid. In general, each diagnosis is primary to only one ETG. A primary diagnosis can begin an episode or be mapped directly into an existing one.

Incidental diagnoses describe conditions present during the treatment of another disorder and are incidental to that disorder. Throat pain for a patient being treated for an episode of bronchitis is an example of an incidental diagnosis. In this instance, the services related to the throat pain would be included in the bronchitis episode and not begin a new episode. Complications indicate a sicker patient that may require more extensive treatment for a related condition. Comorbidities represent ongoing chronic conditions that impact treatment requirements for another episode.

ETGs track and capture concurrent, shifting and recurrent concepts to build episodes. ETGs evaluate and assign each health care service to its appropriate episode, even when more than one illness is treated during a single health care encounter. As a result, ETGs separate and identify *concurrently* occurring conditions and assigns each health care service to the clinically appropriate episode. For each condition, the nature of a member's condition may change – once a more serious condition is identified, a member's entire episode *shifts* to a more appropriate ETG. Finally, should a member suffer a recurrence of the same condition after successful treatment, ETGs identify *recurrent* episodes.

ETGs assign each episode to a Base ETG, which classifies the medical condition. Examples of Base ETGs include diabetes, hypertension, and chronic obstructive pulmonary disease. To achieve clinical homogeneity, ETGs further assess each episode for severity. ETG severity measurement reflects the expected relative resources required for an episode and involves two important concepts: episode severity score and episode severity level. To model severity, ETGs first identify the factors important to each Base ETG, including complications, co-morbidities and patient age and gender – using separate models for each Base ETG where severity adjustment was indicated. Each factor observed for an episode contributes to an overall episode severity score. ETGs then use the severity score to assign the episode to a severity level. As a patient's clinical profile for an episode becomes more complex, the severity score and severity level increase to reflect that complexity.



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ETGs complete an episode based on the absence of treatment for a condition for a specified period of time. This dynamic period of time is called the clean period and varies across ETGs. For example, the clean period for an episode of acute bronchitis is 30 days. This timing and the diagnostic and other categorizations described previously determine the final grouping of services into an episode and the assignment of the episode to an ETG.

Ingenix delivers the ETG methodology in the form of a software grouper product that accepts data from administrative claims and member enrollment and outputs details on the clinical episodes observed for a patient and the services involved in their treatment. ETGs are part of the

Ingenix Symmetry™ Suite of products. Symmetry products are now licensed by more than 300 health care organizations in the U.S., serving more than three-quarters of the insured population. When combined with other Symmetry products — Episode Risk Groups® (ERG®) and Pharmacy Risk Groups™ (PRG™) assess patient and population risk, EBM Connect® measures quality of care, and the new Procedure Episode Groups™ (PEG™) creates procedure — focused episodes of care — ETG support a comprehensive suite of products, leveraging a single methodological platform to address a wide array of analytic needs.

*For a more in depth description of the concepts and methodology of ETG®, please read the **ETG Concepts Guide***

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