



Welch Allyn Xscribe

Stress ECG

Imported Data Elements

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Introduction

The Welch Allyn Xscribe stress system data elements that are supported for import into ASCEND are listed in the following tables where

- ASCEND report is the knowledge base label of the finding
- Xscribe XML location is an XPath expression for the data in the Xscribe XML. The actual value resides in child element named “Value”
- Value is the string text of the XML element or attribute that must be present in the Xscribe to trigger import

Scope of Xscribe Import

Patient Demographics

ASCEND report	Xscribe XML location	Value	Comments
Age	PatientDemographics/Age/Age		Age in years
Birthdate	PatientDemographics/DobEx/Date of Birth		yyyy-mm-dd format
Gender	PatientDemographics/Gender	Female	
Gender	PatientDemographics/Gender	Male	
Race: Asian	PatientDemographics/Race/Race	Asian	Not case sensitive
Race: Black	PatientDemographics/Race/Race	Afro American	Not case sensitive; Factory default race choice is “Afro American”, support all three values
Race: Black	PatientDemographics/Race/Race	Black	Not case sensitive; Factory default race choice is “Afro American”, support all three values
Race: Black	PatientDemographics/Race/Race	African american	Not case sensitive; Factory default race choice is “Afro American”, support all three values
Ethnicity: Hispanic	PatientDemographics/Race/Race	Hispanic	Not case sensitive
Race: Pacific Islander	PatientDemographics/Race/Race	Filipino	Not case sensitive
Race: White	PatientDemographics/Race/Race	Caucasian or white	Not case sensitive
Race: Other (TEXT)	PatientDemographics/Race/Race	Other	Not case sensitive
Height	PatientDemographics/Height/Height		Inches or cm
Weight	PatientDemographics/Weight/Weight		Pounds or kilograms

Study Date and Time, in Study Data

ASCEND report	Xscribe XML location	Value	Comments
Study date	TestSummary/ExamDateEx		yyyy-mm-dd format
Study time	TestSummary/ExamTime		hh:mm format

Study Protocol, in Study Data

ASCEND report	Xscribe XML location	Value	Comments
Protocol: Bruce	TestSummary/Protocol	BRUCE	
Protocol: Modified Bruce	TestSummary/Protocol	MODIFIED BRUCE	
Protocol: Naughton	TestSummary/Protocol	NAUGHTON	
Protocol: Balke	TestSummary/Protocol	BALKE	
Protocol: Ellestad	TestSummary/Protocol	ELLESTAD	
Protocol: Bicycle	TestSummary/Protocol	CYCLE	
Protocol: TEXT	TestSummary/Protocol	<i>Value other than above</i>	
Stress medication: Adenosine	TestSummary/Protocol	ADENOSINE	
Stress medication: Dipyridamole	TestSummary/Protocol	DIPYRIDAMOLE	
Stress medication: Dobutamine	TestSummary/Protocol	DOBUTAMINE	
Stress medication: Regadenoson (Lexiscan)	TestSummary/Protocol	LEXISCAN	

Procedure Narrative – Exercise Protocol

ASCEND report	Xscribe XML location	Value	Comments
Protocol: Bruce	TestSummary/Protocol	BRUCE	
Protocol: Modified Bruce	TestSummary/Protocol	MODIFIED BRUCE	
Protocol: Naughton	TestSummary/Protocol	NAUGHTON	
Protocol: Balke	TestSummary/Protocol	BALKE	
Protocol: Ellestad	TestSummary/Protocol	ELLESTAD	
Protocol: Bicycle ergometry	TestSummary/Protocol	CYCLE	
Protocol: TEXT	TestSummary/Protocol	<i>text other than above</i>	
Duration	TestSummary/ExerciseTime		h:mm:ss
Maximal work rate	TestSummary/MaxMets		
Target HR	TestSummary/ReasonsForEnd	Target HR	
Protocol complete	TestSummary/ReasonsForEnd	Completion of protocol	
ECG changes	TestSummary/ReasonsForEnd	Ischemic ECG	
Arrhythmia	TestSummary/ReasonsForEnd	Atrial Arrhythmia	
Arrhythmia	TestSummary/ReasonsForEnd	Vent arrhythmia	
Arrhythmia	TestSummary/ReasonsForEnd	ventricular arrhythmia	
Chest discomfort	TestSummary/ReasonsForEnd	Chest pain	
Fatigue (Unspecified)	TestSummary/ReasonsForEnd	Fatigue	
Nausea	TestSummary/ReasonsForEnd	Nausea/Headache	Import both nausea and headache
Headache	TestSummary/ReasonsForEnd	Nausea/Headache	Import both nausea and headache
Claudication	TestSummary/ReasonsForEnd	Claudication	
Dizziness	TestSummary/ReasonsForEnd	Dizziness	
Dyspnea	TestSummary/ReasonsForEnd	Shortness of Breath	
Hypotension	TestSummary/ReasonsForEnd	Hypotension	

Procedure narrative - Pharmacologic

ASCEND report	Xscribe XML location	Value	Comments
Stress medication: Adenosine	TestSummary/Protocol	Adenosine	
Stress medication: Dipyridamole	TestSummary/Protocol	Dipyridamole	
Stress medication: Dobutamine	TestSummary/Protocol	Dobutamine	
Regadenoson (Lexiscan)	TestSummary/Protocol	Lexiscan	Device value can be Lexiscan, or Regadenoson, or Regadenoson (Lexiscan) and ASCEND handles them

Stress Table – Exercise (per stage)

ASCEND report	Xscribe XML location	Value	Comments
TEXT	SummaryTable/StageSummaryLine/Stage*		
Velocity	SummaryTable/StageSummaryLine/Speed		Mph or km/h*
Grade	SummaryTable/StageSummaryLine/Grade		% incline
Time in phase	SummaryTable/StageSummaryLine/StageTime		
Metabolic rate	SummaryTable/StageSummaryLine/METS		
HR	SummaryTable/StageSummaryLine/HR		BPM
Systolic BP	SummaryTable/StageSummaryLine/SystolicBP		Mm Hg
Diastolic BP	SummaryTable/StageSummaryLine/DiastolicBP		Mm Hg

Note: Velocity - km/h has been disabled by inserting [disable="1"] in the mapping; the velocity will import in m/h by default when the import of “Velocity” treadmill settings is enabled.

The Welch Allyn Xscribe SummaryTable reports one StageSummaryLine per stage. Each line reports values at the **end** of the stage. All the measurements imported into ASCEND for each stage (i.e. speed, grade, METs, HR, BP, double product) are taken from the end of each stage. The Welch Allyn Xscribe device also produced the MinuteSummaryLine in addition to the StageSummaryLine to describe the state of the patient at the end of each minute and at manually created events and recorded RPEs. ASCEND imports the stress data from the StageSummaryLine only.

* The recovery stages exported from the device can be filtered to import only the first and last recovery stage into the ASCEND report versus all the recovery stages.

Stress table - Pharmacologic (per stage)

ASCEND report	Xscribe XML location	Value	Comments
Adenosine	SummaryTable/StageSummaryLine/Stage * and TestSummary/Protocol /Adenosine	Start exe through Peak Exe	
Dipyridamole	SummaryTable/StageSummaryLine/Stage * and TestSummary/Protocol /Dipyridamole		
Dobutamine	SummaryTable/StageSummaryLine/Stage * and TestSummary/Protocol /Dobutamine		

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ASCEND report	Xscribe XML location	Value	Comments
Regadenoson	SummaryTable/StageSummaryLine/Stage * and TestSummary/Protocol /Regadenoson		
Recovery	SummaryTable/StageSummaryLine/Stage *	Stage 2 recovery through End Rec	
TEXT	SummaryTable/StageSummaryLine/Stage		
Time in phase	SummaryTable/StageSummaryLine/StageTime		
Rate units (mcg/kg/min) **, or Dose units (mg)	---		
HR	SummaryTable/StageSummaryLine/HR		BPM
Systolic BP	SummaryTable/StageSummaryLine/SystolicBP		Mm Hg
Diastolic BP	SummaryTable/StageSummaryLine/DiastolicBP		Mm Hg

* Welch Allyn Xscribe has a limitation and only exports the pharmacological stress test protocol name, but it doesn't support the export of rates/doses for separate stages of a pharmacological stress table. The ASCEND device interface replaces stages 1-n (exported from the device) with the medication name plus the units but not the medication rate/dose.

* The recovery stages exported from the device can be filtered to import only the first and last recovery stage into the ASCEND report versus all the recovery stages.

** Device interface configuration states exist to switch the infusion rate units for Adenosine, Dipyridamole, and Dobutamine from $\mu\text{g}/\text{kg}/\text{min}$ to mg/min .

Stress Data Heart Rate Response

ASCEND report	Xscribe XML location	Value	Comments
Max HR achieved	TestSummary/MaxHR		BPM
Target HR	PatientDemographics/TargetHR		Bpm
Rate-pressure	TestSummary/MaxDoubleProduct		mm Hg/min

Stress ECG Conclusions *

ASCEND report	Xscribe XML location	Value	Comments
Exercise time	TestSummary/ExerciseTime		
Max ST deviation	TestSummary/MaxST_ElevationChange		mm Imports: Max(MaxST_ElevationChange , MaxST_DepressionChange)
Max ST deviation	TestSummary/MaxST_DepressionChange		mm Imports: Max(MaxST_ElevationChange , MaxST_DepressionChange)
Duke score	TestSummary/DukeScore		
Normal	TestSummary/Conclusions	Normal stress test	
Consistent with ischemia	TestSummary/Conclusions	ECG finding suggestive of myocardial ischemia	

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ASCEND report	Xscribe XML location	Value	Comments
Negative for ischemia	TestSummary/Conclusions	No evidence of ischemia	
Equivocal for ischemia	TestSummary/Conclusions	Equivocal study	

* The stress ECG conclusions only import for the Bruce exercise stress protocol.

Risk Factors

ASCEND report	Xscribe XML location	Value	Comments
Nonsmoker	PatientDemographics/Smoker	No	
Current smoker	PatientDemographics/Smoker	Yes	
No diabetes	PatientDemographics/Diabetic	No	
Diabetes (present)	PatientDemographics/Diabetic	Yes	
Family history CAD (present)	PatientDemographics/Family History	Yes	
Family history CAD (absent)	PatientDemographics/Family History	No	
MI	PatientDemographics/History of MI	Yes	
Cardiovascular surgery (CABG)	PatientDemographics/Prior CABG	Yes	
Cath lab (catheterization)	PatientDemographics/Prior Cath	Yes	



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