



PARS Activity XML File Specification for Reporting ABO MOC

Contents

INTRODUCTION	2
1 XML FILE SPECIFICATION DETAILS	4
1.1 ACCME ACTIVITIES	4
1.2 MEDICAL EDUCATION METRICS	5
1.3 ACTIVITY DESCRIPTION	6
1.4 LOM	7
1.5 HEALTHCARE EDUCATION	8
1.6 PARTICIPATION METRICS	12
1.7 XTENSIBLE INFO	13
2 APPENDICES	17
2.1 OPEN AND CLOSED ACTIVITIES	17
2.2 ACTIVITY UPDATES AND ADDITIONS	20
2.3 PROCESS FLOW DIAGRAM	21
2.4 BUSINESS RULES	21
2.5 ACCME ACTIVITY TYPES & ACTIVITY SUB-CATEGORIES	24
2.6 LIST OF COUNTRY CODES	25
2.7 REGISTERING AN ACTIVITY FOR MAINTENANCE OF CERTIFICATION IN OPHTHALMOLOGY (MOC)	28
2.8 AMERICAN BOARD OF OPHTHALMOLOGY (ABO) LIST OF PRACTICE AREAS	29



PARS Activity XML File Specification for Reporting ABO MOC

Introduction

XML stands for eXtensible Markup Language. It is a computer language designed to structure and transmit data over the Internet. The Program and Activity Reporting System (PARS) includes a data upload tool that accepts XML files formatted to conform with the Medical Education Metrics (MEMS) XML standard created by the MedBiquitous Consortium. This tool will enable PARS to collect information in a manner that is consistent with the data communications standards being adopted by medical education content providers. Accredited providers whose CME activity tracking systems can export data to XML files may wish to explore this option for transmitting records to PARS.

The purpose of this document is to describe the ACCME's adaptation of MEMS. These instructions are intended for an audience that is familiar with XML, specifically, the information technology staff who support CME departments. It is beyond the scope of these instructions to describe how to create or edit XML files in general, or how to export data from specific CME tracking systems.

The batch upload function in PARS offers providers the ability to add or update multiple activity records from a single file containing data that has been exported from another tracking system. To successfully upload data, it is critical that providers properly "map" the necessary data from their system into the file format described in this document. Technical understanding of creating XML-formatted files is assumed.

The PARS XML Activity File Specification is an adaptation of the MEMS standard that has been created by the MedBiquitous Consortium. MEMS in turn incorporates another XML specification, the Healthcare Learning Object Model (Healthcare LOM), which is also published by MedBiquitous. Further information on these specifications can be found at http://www.medbig.org/std_specs/standards/index.html, and it is recommended that implementers review this material in detail.

This document does not define or describe MEMS; rather, it explains how ACCME has extended MEMS and how it will interpret the data fields in a MEMS-conformant data record.

Below is a discussion of several key concepts about the way PARS manages activity records. Understanding these concepts will be helpful throughout your work with the system.

Open and Closed activity records: In PARS, the record for an activity can be in one of two states: Open or Closed. Certain fields are required to "Open" an activity, or establish it as a record in the database. An activity record will remain Open until all the required data for that activity is input. Once all required data is input, the record's status will change to "Closed". *Note that an activity that has the status of "Closed" does not necessarily have to have taken place; it is possible, for providers to fill in data for all required fields in an activity prior to it occurring.* The [Appendix 2.1](#) shows the fields required for each status.

Adding or Updating activity records: During the upload process, PARS will check each record in the file to determine whether it relates to a new activity or to an existing activity record (see [Appendix 2.2](#) for a description of the logic used to match records). In order to add a new activity record, a minimal set of fields must contain data (see [Appendix 2.1](#) for the fields required to Open an activity record). If the record being uploaded matches an existing activity record, it is treated as an update to the record, and the data in the new record will overwrite the data in the existing activity record.

Program Summary: The ACCME requires that providers complete an annual Program Summary, which summarizes programmatic income for the year. The Program Summary cannot be completed via the upload function, and must be manually completed via the PARS Program Summary Web site form.



PARS Activity XML File Specification for Reporting ABO MOC

Maintenance of Certification: Accredited CME providers have the option to register activities for several medical specialty boards' Maintenance of Certification (MOC) programs. This document is intended specifically for providers reporting activities for the American Board of Ophthalmology (ABO) Maintenance of Certification Program using either the PARS XML batch upload process or the PARS web service. Activities being registered for ABO MOC must fulfill the requirements for the ABO MOC Program. Complete information about the ABO's program is available at <http://www.accme.org/publications/abo-program-guide>. Further information about formatting XML activity record to include MOC data can be found in [Appendix 2.7](#).



PARS Activity XML File Specification for Reporting ABO MOC

1 XML File Specification Details

This document is a reference for those who wish to use XML formatted records to register CME activities in PARS for ABO to MOC. This document explains ACCME's usage and customization of the **Medbiquitous MEMS** and **Healthcare LOM** standards and specific ACCME business rules and requirements.

Some key points:

1. ACCME did not change the format or structure of the Medbiquitous [MEMS](#), except for 1) the addition of a new super root element called ACCMEActivities, 2) the ACCME customization of the [XtensibleInfo](#) element to capture in-kind support and competencies information, and 3) the uniqueElementName attribute is necessary for healthcaremetadata.
2. Any rules specified in the **ACCME Business Rules** column will be validated by PARS during the XML file upload process. These rules will not be enforced through the use of the Medbiquitous XSD templates.
3. This specification only includes the data elements that will be captured and uploaded by ACCME into PARS. For complete documentation on all data elements that are supported by the Medbiquitous standard, please refer to the Medbiquitous website http://www.medbiq.org/std_specs/standards/index.html
4. Any data elements present in the XML file that are not used by ACCME must still conform to the structure and rules specified in the Medbiquitous XSD template. However, ACCME will not capture and upload this data into PARS.
5. For Boolean types, only lowercase "true" and "false" are accepted as validly formatted.

1.1 ACCME Activities

ACCMEActivities is a new super root element for the MedicalEducationMetrics element. This super root element was created by ACCME to allow more than 1 MedicalEducationMetrics element to be contained within a single XML file for batch uploads.

No	Element Name	Description	Min Occurs	Max Occurs	Type	Enumeration	ACCME Business Rules
1	ACCMEActivities	Super root element that contains 1 or more instances of MedicalEducationMetrics.	1	1	complex	-	-



PARS Activity XML File Specification for Reporting ABO MOC

No	Element Name	Description	Min Occurs	Max Occurs	Type	Enumeration	ACCME Business Rules
2	MedicalEducationMetrics	Medbiquitous-defined container element for each activity. ACCME allows more than one to occur within the ACCMEActivities container. Refer to medicalEducationMetrics for sub-elements within this container.	1	Unbounded	MedicalEducationMetricstype	-	-

1.2 MedicalEducationMetrics

ACCME did not change the XSD template for this element. Any special ACCME data rules will be enforced by the ACCME Program and Activity Reporting System file upload process, not via the XSD template.

No	Element Name	Description	ACCME Business Rules
1	MedicalEducationMetrics	Container element for each activity. ACCME allows more than one to occur within the ACCMEMedicalEducationMetrics container.	-
1.1	ReportDescription	Container element	-
1.1.1	ReportingStartDate	First day of the reporting period for the metrics described for the activity. For ACCME, this is expected to be January 1 st of the activity reporting year.	<ul style="list-style-type: none"> -ACCME will ignore the date portion of <i>ReportingStartDate</i>; the ACCME system will only import the Year portion -The Year portion of <i>ReportingStartDate</i> must be the same year as the Year portion of the <i>ReportingEndDate</i>. This is because activity financial and participation information is reported to ACCME on a yearly basis. -Activities cannot be added or updated if the reporting year has been attested -Existing activities cannot be updated to a reporting year that differs from their current reporting year in PARS. -Activities cannot be added or updated for a Reporting Year that is more than one year after the current year.



PARS Activity XML File Specification for Reporting ABO MOC

No	Element Name	Description	ACCME Business Rules
1.1.2	ReportingEndDate	Last day of the reporting period for the metrics described for the activity. For ACCME, this is expected to be December 31 st of the activity reporting year.	-ACCME will ignore the date portion of <i>ReportingEndDate</i> ; -ACCME will ignore the date portion of <i>ReportingStartDate</i> ; the ACCME system will only import the Year portion -The Year portion of <i>ReportingEndDate</i> must be the same year as the Year portion of the <i>ReportingStartDate</i> . This is because activity financial and participation information is reported to ACCME on a yearly basis -Activities cannot be added or updated if the reporting year has been attested. -Existing activities cannot be updated to a reporting year that differs from their current reporting year in PARS. -Activities cannot be added or updated for a Reporting Year that is more than one year after the current year.
1.2	ActivityDescription	Container element. Refer to ActivityDescription for sub-elements within this container	-
1.2.1	Lom	Container element. Refer to lom for sub-elements within this container	-
1.2.1.1	healthcareMetadata	Container element Healthcare Learning Object Metadata Standard.	-
1.2.1.1.1	healthcareEducation	Container element. Refer to healthcareEducation for sub-elements within this container.	-
1.3	ParticipationMetrics	Container element. Refer to participationMetrics for sub-elements within this container.	-
1.4	XtensibleInfo	Container element that contains ACCME-specific data elements. Refer to XtensibleInfo for sub-elements within this container.	-

1.3 ActivityDescription

ACCME did not change the XSD template for this element. Any special ACCME data rules will be enforced by the ACCME Program and Activity Reporting System file upload process, not via the XSD template.

No	Element Name	Description	ACCME Business Rules
1.2	ActivityDescription	Container element	-



PARS Activity XML File Specification for Reporting ABO MOC

No	Element Name	Description	ACCME Business Rules
1.2.1	Lom	Container element. Refer to lom for sub-elements within this container.	-
1.2.2	designedToChangeCompetence	Designed to Change Competence	-
1.2.3	changesInCompetenceMeasured	Changes in Competence Evaluated	-
1.2.4	designedToChangePPerformance	Designed to Change Performance	-
1.2.5	changesInPerformanceMeasured	Changes in Performance Evaluated	-
1.2.6	designedToChangePatientOutcomes	Designed to Change Patient Outcomes	-
1.2.7	changesInPatientOutcomesMeasured	Changes in Patient Outcomes Evaluated	-
1.2.8	commercialSupportAmount	<p>Indicates the amount of commercial support received from a single source. This amount must be a whole number (no decimal values allowed).</p> <p>This sub-element has the following attributes:</p> <ol style="list-style-type: none"> <i>currency</i> – Currency of the amount indicated. <i>supportSource</i>– Organization that is the source of commercial support. 	<p>ACCME is interested in commercial support amounts in USD currency only. All other income specified in non-USD currencies will be ignored.</p> <p>ACCME expects a USD currency amount >= 0.</p>

1.4 Lom

ACCME did not change the XSD template for this element. Any special ACCME data rules will be enforced by PARS file upload process, not via the XSD template.

No	Element Name	Description	ACCME Business Rules
1.2.1	Lom	Container element. This element is from the IEEE Learning Object Model (LOM) standard.	-
1.2.1.1	healthcareMetadata	Container element Healthcare Learning Object Metadata Standard.	-
1.2.1.2	general	Container element.	-
1.2.1.2.1	identifier	Container element.	-ACCME requires at least 2 <i>identifier</i> elements per activity with catalog values described below.



PARS Activity XML File Specification for Reporting ABO MOC

No	Element Name	Description	ACCME Business Rules
1.2.1.2.1.1	Catalog	Type of unique identifier.	<ul style="list-style-type: none"> - "Provider Activity ID" is required for all MOC activity records. This should be an internal identifier that your system assigns to uniquely identify an activity. - "URL" is required for all MOC activity records. This can be a web address associated with the activity, or a web address associated with the CME program if the activity does not have a separate URL. - "ACCME Activity ID" is assigned by PARS. It cannot be included for new records, but may be used for updates to existing activity records.
1.2.1.2.1.2	Entry	Unique identifier for the activity	<ul style="list-style-type: none"> - If catalog = "Provider Activity ID", it is assumed that <i>entry</i> is unique within the provider organization. - If catalog = "URL", the entry should be the full web address for a page with information about the CME activity, or the web page for the accredited CME provider or its parent organization, if the activity does not have an individual URL. The URL value does not need to be unique for each activity record. - If catalog = "ACCME Activity ID", it is assumed that <i>entry</i> is unique in the entire system.
1.2.1.2.2	title	Name of the learning activity.	-
1.2.1.2.3	description	Description of the content of the activity	Maximum characters allowed is 2500
1.2.1.3	educational	Container element.	-
1.2.1.3.1	typicallearningtime	Container for hours of instruction.	-
1.2.1.3.2	duration	Hours of instruction. Example: <lom:duration>PT2H0M</lom:duration>	-Definition: Total hours of educational instruction provided. Ex: If a one-day course lasts 8 hours, then hours of instruction equals 8.

1.5 HealthcareEducation

ACCME did not change the XSD template for this element. Any special ACCME data rules will be enforced by the ACCME Program and Activity Reporting System file upload process, not via the XSD template.



PARS Activity XML File Specification for Reporting ABO MOC

No	Element Name	Description	ACCME Business Rules
1.2.1.1.1	healthcareEducation	Contains healthcare specific metadata for educational offerings.	-
1.2.1.1.1.1	credits	Container element.	- ACCME will only import <i>credits</i> element instances that have an <i>activityCertification</i> value of "AMA PRA Category 1". All other <i>activityCertification</i> values will be ignored. -System will only capture the first occurrence of this element that has a "AMA PRA Category 1" activity certification type. The system will ignore all successive occurrences.
1.2.1.1.1.1.1	nonAccreditedProvider	The educational provider for this activity that is not the accredited provider. Jointly provided activities have a non-accredited provider. One or more instances of this element can be used to define multiple joint sponsors for activities that are jointly-provided.	-If an activity is jointly provided (has an <i>activitySponsorship</i> value of "joint"), ACCME optionally allows one or more nonAccreditedProvider elements to be defined that indicates the joint provider's name for the activity.
1.2.1.1.1.1.2	activityCertification	Identifies the category of credit awarded for the activity by the accredited medical education organization.	-
1.2.1.1.1.1.3	numberOfCredits	Number of continuing education credits associated with the activity	-
1.2.1.1.1.2	activityLocation	Indicates geographical location where an in-person activity takes place	-
1.2.1.1.1.2.1	city	Indicates city where in-person activity takes place	-Check that city is present depending on the <i>activityFormat</i> value
1.2.1.1.1.2.2	stateorprovince	Indicates state where in-person activity takes place.	-Check that stateorprovince is present depending on the <i>activityFormat</i> value -If <i>country</i> is the USA, check that state is a valid two-letter state
1.2.1.1.1.2.3	country	Indicates country where in-person activity takes place.	-The country should be a valid 3-letter country code. See Appendix 2.6 for a list of country codes.
1.2.1.1.1.3	startDateTime	Indicates the date and time an activity begins.	-ACCME will ignore the time portion of <i>startDateTime</i> , Note: <i>startDateTime</i> value must include BOTH the date and time components even though the ACCME upload process ignores the time portion of the value. Example: 2018-05-30T00:00:00



PARS Activity XML File Specification for Reporting ABO MOC

No	Element Name	Description	ACCME Business Rules
1.2.1.1.1.4	endTime	Indicates the date and time an activity ends, or is no longer available for use by learners.	<p>This element is required for MOC activity registration.</p> <p>-ACCME will ignore the time portion of endTime,</p> <p>Note: <i>endTime</i> value must include BOTH the date and time components even though the ACCME upload process ignores the time portion of the value. Example: 2018-05-31T00:00:00</p>
1.2.1.1.1.5	activitySponsorship	Providership. Valid values are "direct" or "joint"	<p>-Definition: A directly provided (formerly known as "sponsored") activity is planned, implemented and evaluated by the accredited provider. Include co-provided activities (provided by two accredited providers) in this category if you are the accredited provider awarding the credit. In contrast, a jointly provided activity is one that is planned, implemented and evaluated by the accredited provider and a non-accredited entity.</p>



PARS Activity XML File Specification for Reporting ABO MOC

No	Element Name	Description	ACCME Business Rules
1.2.1.1.1.6	activityFormat	<p>Indicates the type of learning activity. There can be more than one activityFormat defined for an activity.</p> <p>ACCME expects that the activityFormat value used is one of the recognized ACCME activity types and, if applicable, sub-categories.</p>	<p>-<i>activityFormat</i> instances where the activity type value is NOT one of the recognized ACCME types will be IGNORED and the entire activity record will NOT be processed by PARS.</p> <p>-activityFormat instances where a sub-category exists for an activity type that does not allow sub-categories will be IGNORED and the entire activity record will NOT be processed by PARS.</p> <p>-activityFormat instances where an invalid sub-category exists for an activity type that allows sub-categories will be processed by PARS, but the invalid sub-category will be ignored.</p> <p>-The system will check for a valid combination of recognized ACCME activity types and, if applicable, activity sub-categories (also see Appendix 2.5):</p> <ul style="list-style-type: none"> a. Course b. Course + 1 or more of the following sub-categories: [Panel Lecture Small group discussion Case based discussion Simulation Skill-based training Other-<i>OtherEntry</i>] c. Internet Live Course d. Internet Live Course + 1 or more of the following sub-categories: [Panel Lecture Small group discussion Case based discussion Simulation Skill-based training Other-<i>OtherEntry</i>] e. Regularly Scheduled Series f. Enduring Material g. Internet Activity Enduring Material h. Journal-based CME i. Manuscript Review j. Test Item Writing k. Committee Learning l. Performance Improvement m. Internet Searching and Learning n. Learning from Teaching <p><i>*All other combinations are invalid.</i></p>



PARS Activity XML File Specification for Reporting ABO MOC

No	Element Name	Description	ACCME Business Rules
1.2.1.1.1.7	commercialSupport	Indicates the existence of commercial support from a manufacturer of a commercial product. NOTE: Use the activityDescription:commercialSupportAmount sub-element to specify commercial support source and amount for an activity	The system will capture <i>commercialSupport</i> as "yes" even if it the element has been defined as "no" if 1 or more of the following elements have been specified in the file: - <i>activityDescription: commercialSupportAmount</i> - <i>Xtensible:numberCommercialSupporters</i> - <i>Xtensible:totalMonetaryAmountReceived</i> - <i>Xtensible:durableEquipmentReceivedForActivity</i> - <i>Xtensible:spaceReceivedForActivity</i> - <i>Xtensible:disposableSuppliesReceivedForActivity</i> - <i>Xtensible:animalPartsOrTissueReceivedForActivity</i> - <i>Xtensible:humanPartsOrTissueReceivedForActivity</i> - <i>Xtensible:otherForActivity</i> - <i>Xtensible:InKindSupport: durableEquipmentReceived</i> - <i>Xtensible:InKindSupport: spaceReceived</i> - <i>Xtensible:InKindSupport: disposableSuppliesReceived</i> - <i>Xtensible:InKindSupport: animalPartsOrTissueReceived</i> - <i>Xtensible:InKindSupport: humanPartsOrTissueReceived</i> - <i>Xtensible:InKindSupport: other</i>
1.2.1.1.1.8	targetAudience	Container element for listing the medical practice areas for which the activity content is relevant.	The <i>targetAudience</i> element and at least one practice area sub-element are required if the activity is being registered for MOC.
1.2.1.1.1.8.1	specialty	Name of a practice area for which the activity content is relevant.	The list of valid practice areas for ABO MOC registration appears in Appendix 2.8 .

1.6 ParticipationMetrics

ACCME did not change the XSD template for this element. Any special ACCME data rules will be enforced by the ACCME Program and Activity Reporting System file upload process, not via the XSD template.

No	Element Name	Description	ACCME Business Rules
1.3	participationMetrics	Container element.	-



PARS Activity XML File Specification for Reporting ABO MOC

No	Element Name	Description	ACCME Business Rules
1.3.1	participantsByCategory	<p>Defines the number of participants by category. The XSD file allows 0 or more participantsByCategory elements.</p> <p>This sub-element has the following attributes:</p> <ol style="list-style-type: none"> 1. <i>category</i>-Indicates the participant category described. 	<p>-System will ignore any <i>participantsByCategory</i> instances that have a category that is not "physician" or "non-physician".</p> <p>-System will only capture the first occurrences of this element for the "physician" and "non-physician" categories. The system will ignore all successive occurrences of "physician" and "non-physician" categories.</p> <p>-The "physician" category definition: the number of MD's and DO's that participated in the activity. Resident physicians are included in this category.</p> <p>-The "non-physician" (now known as "Other Learners") category definition: the number of participants other than MD's or DO's, such as nurses, physician assistants, and other health professionals.</p>

1.7 XtensibleInfo

ACCME extended the XtensibleInfo element to include fields for data that ACCME wants to capture, but are not part of the Medbiquitous standard.

No	Element Name	Description	Min Occurs	Max Occurs	Type	Enumeration/Valid Values	ACCME Business Rules
1.4	XtensibleInfo	Container element.	0	1	Container	-	-
1.4.9	InKindSupports	Container element for in kind support data.	0	1	Container	-	-
1.4.9.1	InKindSupport	Container element. This sub-element has the following attributes: 1. <i>Source</i> - Source of commercial support.	1	unbounded	Container	-	-
1.4.9.1.1	durableEquipmentReceived	Source-level: Indicates if in-kind support in the form of durable equipment was received from a commercial product manufacturer.	0	1	Boolean	true, false	-



PARS Activity XML File Specification for Reporting ABO MOC

No	Element Name	Description	Min Occurs	Max Occurs	Type	Enumeration/Valid Values	ACCME Business Rules
1.4.9.1.2	spaceReceived	Source-level: Indicates if in-kind support in the form of space was received from a commercial product manufacturer.	0	1	Boolean	true, false	-
1.4.9.1.3	disposableSuppliesReceived	Source-level: Indicates if in-kind support in the form of disposable supplies was received from a commercial product manufacturer.	0	1	Boolean	true, false	-
1.4.9.1.4	animalPartsOrTissueReceived	Source-level: Indicates if in-kind support in the form of animal parts or tissue was received from a commercial product manufacturer.	0	1	Boolean	true, false	-
1.4.9.1.5	humanPartsOrTissueReceived	Source-level: Indicates if in-kind support in the form of human parts or tissue was received from a commercial product manufacturer.	0	1	Boolean	true, false	-
1.4.9.1.6	other	Source-level: Indicates if other in-kind support received from a commercial product manufacturer.	0	1	Boolean	True, false	-
1.5	ABMSACGME	Container element for ABMS/ACGME competencies data.	0	1	Container	-	-
1.5.1	patientCareAndProceduralSkills	Indicates if activity addressed Patient Care and Procedural Skills	0	1	Boolean	true, false	-
1.5.2	medicalKnowledge	Indicates if activity addressed Medical Knowledge	0	1	Boolean	true, false	-
1.5.3	practiceBasedLearningAndImprovement	Indicates if activity addressed Practice-based Learning and Improvement	0	1	Boolean	true, false	-
1.5.4	interpersonalAndCommunicationSkills	Indicates if activity addressed Interpersonal and Communication Skills	0	1	Boolean	true, false	-
1.5.5	professionalism	Indicates if activity addressed Professionalism	0	1	Boolean	true, false	-
1.5.6	systemsBasedPractice	Indicates if activity addressed Systems-based Practice	0	1	Boolean	true, false	-



PARS Activity XML File Specification for Reporting ABO MOC

No	Element Name	Description	Min Occurs	Max Occurs	Type	Enumeration/Valid Values	ACCME Business Rules
1.6	InstituteofMedicine	Container element for Institute of Medicine competencies data.	0	1	Container	-	-
1.6.1	providePatientCenteredCare	Indicates if activity addressed Provide patient-centered care	0	1	Boolean	true, false	-
1.6.2	workInInterdisciplinaryTeams	Indicates if activity addressed Work in interdisciplinary teams	0	1	Boolean	true, false	-
1.6.3	employEvidenceBasedPractice	Indicates if activity addressed Employ evidence-based practice	0	1	Boolean	true, false	-
1.6.4	applyQualityImprovement	Indicates if activity addressed Apply quality improvement	0	1	Boolean	true, false	-
1.6.5	utilizeInformatics	Indicates if activity addressed Utilize informatics	0	1	Boolean	true, false	-
1.7	InterprofessionalEducationCollaborative	Container element for Interprofessional Education Collaborative competencies data	0	1	Container	-	-
1.7.1	valuesEthicsForInterprofessionalPractice	Indicates if activity addressed Values/Ethics for Interprofessional Practice	0	1	Boolean	true, false	-
1.7.2	rolesResponsibilities	Indicates if activity addressed Roles/Responsibilities	0	1	Boolean	true, false	-
1.7.3	interprofessionalCommunication	Indicates if activity addressed Interprofessional Communication	0	1	Boolean	true, false	-
1.7.4	teamsAndTeamwork	Indicates if activity addressed Teams and Teamwork	0	1	Boolean	true, false	-
1.8	OtherCompetencies	Container element for Other competencies data	0	1	Container	-	-
1.8.1	otherCompetenciesAddressed	Indicates if activity addressed other competencies	0	1	Boolean	true, false	-
1.9	MOCRegistrations	Container element for one or more maintenance of certification registrations	0	1	Container	-	Required for activity to be registered for ABO MOC



PARS Activity XML File Specification for Reporting ABO MOC

No	Element Name	Description	Min Occurs	Max Occurs	Type	Enumeration/Valid Values	ACCME Business Rules
1.9.1.1	MOCRegistration	Container element	0	1	Container	-	One per specialty board. At present, only one <i>MOCRegistration</i> element may be included for an activity record.
1.9.1.1.1	boardName	Indicates name of the specialty board for which the MOC is being registered	0	1	Text	ABO	Use "ABO" for registering MOC activities.
1.9.1.1.2	mocPoints	Indicates the number of MOC points for which the activity is registered.	0	1	Decimal	=> 0.25	
1.9.1.1.3	medicalKnowledgeApproval	Indicates whether the activity is registered for Lifelong Learning (MOC Part II).	1	1	Boolean	true, false	This must be "true" to register the activity for ABO MOC.
1.9.1.1.4	practiceAssessmentApproval	Indicates whether the activity is registered for Improvement in Medical Practice (MOC Part IV).	0	1	Boolean	true, false	If "true", patientSafetyApproval cannot also be "true"
1.9.1.1.5	patientSafetyApproval	Indicates whether the activity is registered for Patient Safety.	0	1	Boolean	true, false	If "true", practiceAssessmentApproval cannot also be "true"
1.9.1.1.6	selfAssessmentApproval	Indicates whether the activity is registered for Self-Assessment	0	1	Boolean	true, false	
2.0	FeeForParticipation	Indicates whether a fee is associated with learner participation in the CME activity	0	1	Boolean	true, false	Required for registration of MOC activity
2.1	ActivityRegistration	Indicates whether the activity is available to all potential learners or if participation is limited (e.g., to staff of the CME provider's institution).	0	1	Text	Open to all, Limited	Required for registration of MOC activity

2 Appendices

2.1 Open and Closed Activities

The below chart provides details on the data the PARS System requires for opening and closing an Activity:

Field Name	Data is Required in Field:	
	To Open Activity Record	To Close Activity Record
ReportingStartDate	Yes	Yes
ReportingEndDate	Yes <i>Note: This field is required by the MedicalEducationMetrics specification, but it will not be displayed on the PARS system.</i>	Yes <i>Note: This field is required by the MedicalEducationMetrics specification, but it will not be displayed on the PARS system.</i>
identifier	Yes	Yes
title	Yes	Yes
startDateTime	Yes	Yes
city	Required if the ActivityFormat is one of the following: <ul style="list-style-type: none"> • Course • Regularly Scheduled Series For other ActivityFormats data should not be entered	Required if the ActivityFormat is one of the following: <ul style="list-style-type: none"> • Course • Regularly Scheduled Series For other ActivityFormats data should not be entered
stateorprovince	Required if the ActivityFormat is one of the following: <ul style="list-style-type: none"> • Course • Regularly Scheduled Series For other ActivityFormats data should not be entered	Required if the ActivityFormat is one of the following: <ul style="list-style-type: none"> • Course • Regularly Scheduled Series For other ActivityFormats data should not be entered
country	Required if the ActivityFormat is one of the following: <ul style="list-style-type: none"> • Course • Regularly Scheduled Series For other ActivityFormats data should not be entered	Required if the ActivityFormat is one of the following: <ul style="list-style-type: none"> • Course • Regularly Scheduled Series For other ActivityFormats data should not be entered
activitySponsorship	No	Yes <i>(Note: "sponsorship" is now displayed on the PARS system as "providership")</i>

Field Name	Data is Required in Field:	
	To Open Activity Record	To Close Activity Record
activityFormat	Yes	Yes
duration	No	Yes
participantsByCategory	No	Yes, the system requires data for one category of “physician” and one category of “non-physician” <i>(Note: “non-physician” is now displayed on the PARS system as “other learners”)</i>
commercialSupport	No	Yes
designedToChangeCompetence	No	Yes
changesInCompetenceMeasured	No	Yes
designedToChangePerformance	No	Yes
changesInPerformanceMeasured	No	Yes
designedToChangePatientOutcomes	No	Yes
changesInPatientOutcomesMeasured	No	Yes
nonAccreditedProvider	No	If the activitySponsorship field is “joint”, then this field is required. If the activitySponsorship field is “direct” or not entered, then no data should be entered in this field.
credits	No	Yes
description	No	No
commercialSupportAmount	No	If commercialSupport is “Yes”, then each commercial support source should have a value entered in this field. If commercialSupport is “No”, then no data should be entered in this field.
durableEquipmentReceived	No	

Field Name	Data is Required in Field:	
	To Open Activity Record	To Close Activity Record
disposableSuppliesReceived	No	<p>If commercialSupport is “Yes”, then each commercial support source should have a value entered in commercialSupportAmount or at least one “Yes” for one of these types of in-kind commercial support received.</p> <p>If commercialSupport is “No”, then no data should be entered in these fields.</p>
animalPartsorTissueReceived	No	
humanPartsorTissueReceived	No	
spaceReceived	No	
other	No	
patientCareAndProceduralSkills	No	<p>At least one competency must be “Yes.”</p>
medicalKnowledge	No	
practiceBasedLearningAndImprovement	No	
interpersonalAndCommunicationSkills	No	
professionalism	No	
systemsBasedPractice	No	
providePatientCenteredCare	No	
workInInterdisciplinary Teams	No	
employEvidenceBasedPractice	No	
applyQualityImprovement	No	
utilizeInformatics	No	
valuesEthicsForInterprofessionalPractice	No	
rolesResponsibilities	No	

Field Name	Data is Required in Field:	
	To Open Activity Record	To Close Activity Record
interprofessionalCommunication	No	
teamsAndTeamwork	No	
otherCompetenciesAddressed	No	

2.2 Activity Updates and Additions

1. Updating an Existing Activity

An existing activity is updated if a matching activity is found. Matching activities can be found by:

- a. Lom:entry where [lom:catalog](#) = "ACCME Activity ID";

OR

- b. The combination of the following fields:
 - i. Lom:entry where [lom:catalog](#) = "Provider Activity ID"; AND
 - ii. [ReportingStartDate*](#); AND
 - iii. [ActivityFormat](#); AND
 - iv. [StartDateTime](#)

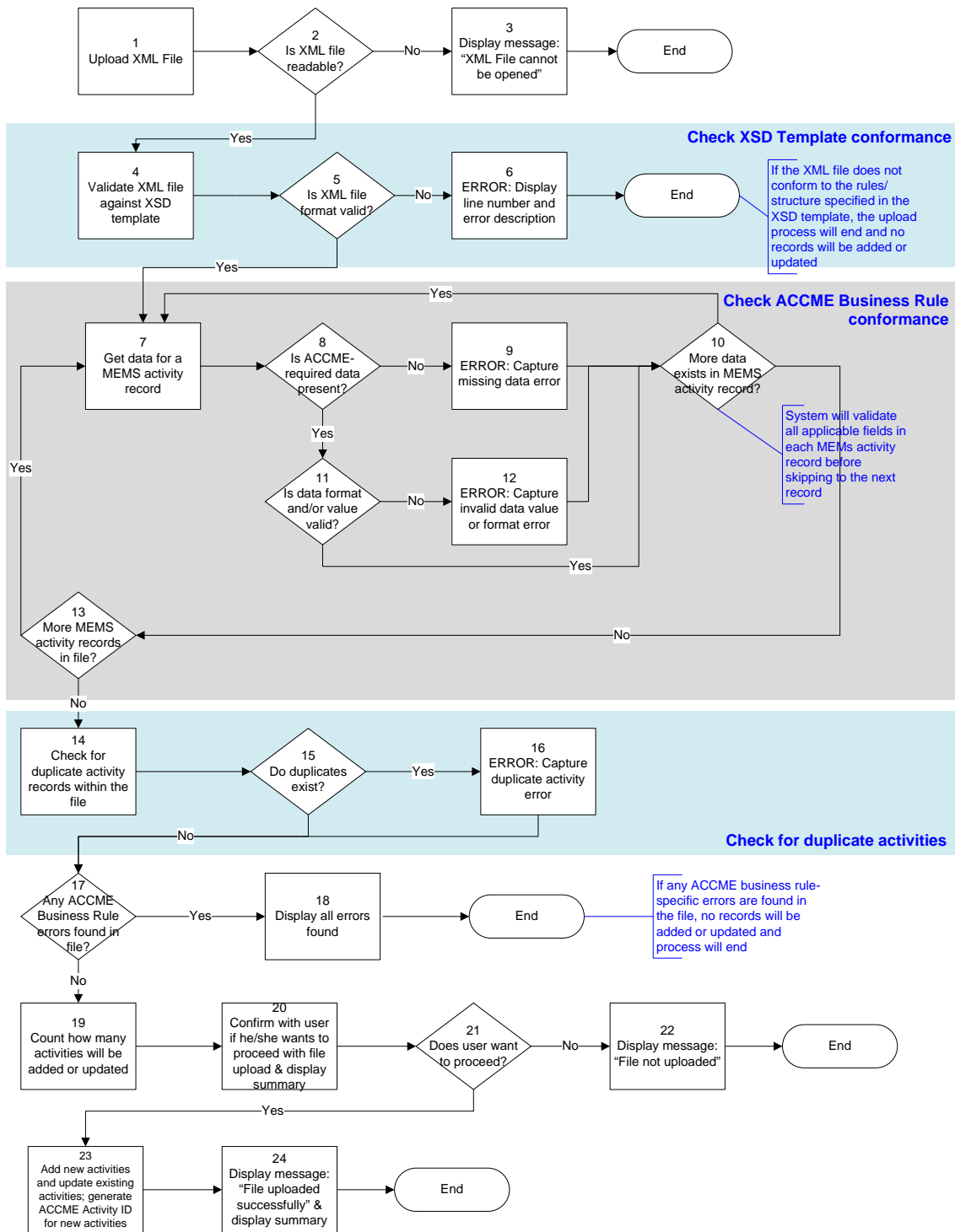
* *ReportingStartDate*: The year of the [ReportingStartDate](#) does NOT need to match the year of the [startDateTime](#). The ReportingStartDate year should correspond to the year the activity's financial and participation data is being reported.

If a matching activity is found, then the existing activity is updated based on the information within the file.

2. Adding a New Activity

If no matching activity is found (see previous section), the system will add a new activity.

2.3 Process Flow Diagram



2.4 Business Rules

The business rules are described below where the # (i.e. #2) corresponds to the number in the [Process Flow Diagram](#):

1. #2 Is File Readable?

System will check that file can be opened and read as a text file.

If the file cannot be opened / read as a text file, display the following error message in the error report: "File cannot be opened or read. Please make sure that you are uploading a text file in the correct format"

2. #5 Is XML File Format Valid?

System will check that the XML file conforms to the structure and rules defined by the XSD template. Need additional information.

3. #8 Is ACCME-Required Field Present?

System will check if a required data field is present per ACCME business rules.

If an ACCME-required field is missing, display the following error message in the error report:
MEMS Element: <Number>, identifier: entry: xxxxx, Element name: <ElementName> - Missing required field: <Name of missing field>"

Example

MEMS Element: 1; identifier: entry: 100000999, Element name:
ActivityDescription/lom:lom/hx:healthcareMetadata/hx:general - Missing required field: title"

4. #11 Is Data Format and/or Value Valid?

System will check if data format and value is valid per ACCME business rules. If a particular field is not applicable based on activity type, the system will ignore the data in the field even if data is provided.

a. If data value or format is invalid, display the following error message in the error report:

Example:

MEMS Element: 1; identifier: entry: 100000999, - Invalid data value/format for
ActivityDescription/lom:lom/hx:healthcareMetadata/hx:healthcareEducation/hx:activityLocation/ad:StateOrProvince: ABC

b. If the ACCME activity ID is present for an activity, but no matching ACCME activity ID is found in the database, return an error message.

Example:

MEMS Element: 1; identifier: entry: 10000088888, Element name:
ActivityDescription/lom:lom/lom:general/lom:identifier/lom:catalog/lom:entry - ACCME
ActivityID is invalid/does not exist

c. If the ACCME activity ID in the file has a matching ACCME activity ID in the database, but the ACCME activity ID belongs to an activity for a different provider, return an error message.

Example

MEMS Element: 1; identifier: entry: 100000999, Element name:
ActivityDescription/lom:lom/lom:general/lom:identifier/lom:catalog/lom:entry - ACCME
ActivityID is invalid/does not exist

d. If uploading activities for ReportingStartDate 2015 to 2016 using the template for a different reporting year, return an error message.

Example:

MEMS Element: 1; identifier: entry: X000A, Element name: ReportingStartDate - Invalid value for Reporting Year: 2014. To upload activities for Reporting Year 2014, click on the "please click here" link in the first paragraph on this page and be sure to use the appropriate template.

- e. **If adding or updating an activity that is in a Reporting Year that has already been attested as complete, return an error message.**

Example:

MEMS Element: 1; identifier: entry: X0001, Element name: ReportingStartDate - Invalid value for Reporting Year: 2015. You cannot add or update activities for 2015 because the data for this year has already been attested as complete.

- f. **If attempting to update the Reporting Year of an existing activity, return an error message.**

Example:

MEMS Element: 1; identifier: entry: X0001, Element name: ReportingStartDate - Update to Reporting Year not permitted.

- g. **If attempting to add or update an activity for a Reporting Year that is more than one year after the current year, return an error message.**

Example:

MEMS Element: 1; identifier: entry: X000B, Element name: ReportingStartDate: This activity record is assigned to a reporting year that is not currently available for entry of records.

5. #15 Do Duplicates Exist?

A file must not contain duplicate activity records. A record in the file is unique if one of the following conditions is true:

- a. The combination of the following fields is unique:
 - i. Lom:entry where lom:catalog = "ACCME Activity ID"
- b. Combination of the following fields is unique:
 - i. Lom:entry where lom:catalog = "Provider Activity ID"
 - ii. ReportingStartDate*
 - iii. ActivityFormat
 - iv. StartDateTime

* *ReportingStartDate*: The year of the [ReportingStartDate](#) does NOT need to match the year of the [startDateTime](#). The ReportingStartDate year should correspond to the year the activity's financial and participation data is being reported.

If duplicate records are found, display the following error message in the error report for each record that is a duplicate.

Example 1 (ACCME Activity ID is present in file): "MEMS Element: 2; identifier: entry: 100000999, Duplicate activity record: Activity ID=100000999, Provider ID=, Reporting Year=2018, Activity Type=Course, Activity Date=2018-05-30T00:00:00"

Example 2 (Provider Activity ID is present in file): "MEMS Element: 2; identifier: entry: A0001, Duplicate activity record: Activity ID=, Provider ID=A0001, Reporting Year=2018, Activity Type=Course, Activity Date=2018-05-30T00:00:00"

NOTE: If two records have the same Provider Activity ID, but different activityFormat and/or StartDateTime values, they are considered to be two different activities. An example of this is the same enduring material activity that is published both as an Internet activity and as a Journal.

6. #23 Update matching activities in database

If a matching activity is found in the database, the system will update all fields matching the activity record (*see special processing for multi-year activities below*). See business rule #5 for matching activity records.

7. #23 Add new activities

If no matching activity is found in the database, the system will add a new activity record.

2.5 ACCME Activity Types & Activity Sub-Categories

These Activity Types and Activity Sub-Categories are the valid combinations for use in the [activityFormat](#) element.

Activity Type	Activity Sub-Category
Course	<p>List of Course sub-categories are: Panel Lecture Small group discussion Case based discussion Simulation Skill-based training Other-OtherEntry</p> <p><i>Note: For the sub-category "Other-OtherEntry", the text "OtherEntry" can be replaced by an activity sub-category name (i.e. Other-Internship). Only 1 "Other" type of subcategory is allowed per activity. The system will ignore subsequent occurrences.</i></p>
Regularly Scheduled Series	Not applicable
Internet Live Course	<p>List of Internet Live Course sub-categories are: Panel Lecture Small group discussion Case based discussion Simulation Skill-based training Other-OtherEntry</p> <p><i>Note: For the sub-category "Other-OtherEntry", the text "OtherEntry" can be replaced by an activity sub-category name (i.e. Other-Internship). Only 1 "Other" type of subcategory is allowed per activity. The system will ignore subsequent occurrences.</i></p>
Enduring Material	Not applicable
Internet Activity Enduring Material	Not applicable
Journal-based CME	Not applicable
Manuscript Review	Not applicable
Test Item Writing	Not applicable
Committee Learning	Not applicable
Performance Improvement	Not applicable
Internet Searching and Learning	Not applicable
Learning from Teaching	Not applicable

2.6 List of Country Codes

Below is a list of the 3-letter country codes for the [country](#) element.

Note: Please see the [U.S. Territories / Regions](#) section for information regarding U.S. territory / region processing.

Country	Code	Country	Code	Country	Code	Country	Code
Afghanistan	AFG	Belize	BLZ	Chad	TCD	Ecuador	ECU
Aland Islands	ALA	Benin	BEN	Chile	CHL	Egypt	EGY
Albania	ALB	Bermuda	BMU	China	CHN	El Salvador	SLV
Algeria	DZA	Bhutan	BTN	Colombia	COL	Equatorial Guinea	GNQ
Andorra	AND	Bolivia (Plurinational State of)	BOL	Comoros	COM	Eritrea	ERI
Angola	AGO	Bosnia and Herzegovina	BIH	Congo	COG	Estonia	EST
Anguilla	AIA	Botswana	BWA	Cook Islands	COK	Ethiopia	ETH
Antigua and Barbuda	ATG	Brazil	BRA	Costa Rica	CRI	Faeroe Islands	FRO
Argentina	ARG	British Virgin Islands	VGB	Cote d'Ivoire	CIV	Falkland Islands (Malvinas)	FLK
Armenia	ARM	Brunei Darussalam	BRN	Croatia	HRV	Fiji	FJI
Aruba	ABW	Bulgaria	BGR	Cuba	CUB	Finland	FIN
Australia	AUS	Burkina Faso	BFA	Cyprus	CYP	France	FRA
Austria	AUT	Burundi	BDI	Czech Republic	CZE	French Guiana	GUF
Azerbaijan	AZE	Cambodia	KHM	Democratic People's Republic of Korea	PRK	French Polynesia	PYF
Bahamas	BHS	Cameroon	CMR	Democratic Republic of the Congo	COD	Gabon	GAB
Bahrain	BHR	Canada	CAN	Denmark	DNK	Gambia	GMB
Bangladesh	BGD	Cape Verde	CPV	Djibouti	DJI	Georgia	GEO
Barbados	BRB	Cayman Islands	CYM	Dominica	DMA	Germany	DEU
Belarus	BLR	Central African Republic	CAF	Dominican Republic	DOM	Ghana	GHA
Belgium	BEL					Gibraltar	GIB

Country	Code
Greece	GRC
Greenland	GRL
Grenada	GRD
Guadeloupe	GLP
Guatemala	GTM
Guernsey	GGY
Guinea	GIN
Guinea-Bissau	GNB
Guyana	GUY
Haiti	HTI
Holy See	VAT
Honduras	HND
Hong Kong Special Administrative Region of China	HKG
Hungary	HUN
Iceland	ISL
India	IND
Indonesia	IDN
Iran (Islamic Republic of)	IRN
Iraq	IRQ
Ireland	IRL
Isle of Man	IMN
Israel	ISR
Italy	ITA
Jamaica	JAM

Country	Code
Japan	JPN
Jersey	JEY
Jordan	JOR
Kazakhstan	KAZ
Kenya	KEN
Kiribati	KIR
Kuwait	KWT
Kyrgyzstan	KGZ
Lao People's Democratic Republic	LAO
Latvia	LVA
Lebanon	LBN
Lesotho	LSO
Liberia	LBR
Libyan Arab Jamahiriya	LYB
Liechtenstein	LIE
Lithuania	LTU
Luxembourg	LUX
Macao Special Administrative Region of China	MAC
Madagascar	MDG
Malawi	MWI
Malaysia	MYS
Maldives	MDV
Mali	MLI

Country	Code
Malta	MLT
Martinique	MTQ
Mauritania	MRT
Mauritius	MUS
Mayotte	MYT
Mexico	MEX
Monaco	MCO
Mongolia	MNG
Montenegro	MNE
Montserrat	MSR
Morocco	MAR
Mozambique	MOZ
Myanmar	MMR
Namibia	NAM
Nauru	NRU
Nepal	NPL
Netherlands	NLD
Netherlands Antilles	ANT
New Caledonia	NCL
New Zealand	NZL
Nicaragua	NIC
Niger	NER
Nigeria	NGA
Niue	NIU
Norfolk Island	NFK

Country	Code
Norway	NOR
Occupied Palestinian Territory	PSE
Oman	OMN
Pakistan	PAK
Panama	PAN
Papua New Guinea	PNG
Paraguay	PRY
Peru	PER
Philippines	PHL
Pitcairn	PCN
Poland	POL
Portugal	PRT
Qatar	QAT
Republic of Korea	KOR
Republic of Moldova	MDA
Réunion	REU
Romania	ROU
Russian Federation	RUS
Rwanda	RWA
Saint Helena	SHN
Saint Kitts and Nevis	KNA
Saint Lucia	LCA
Saint Pierre and Miquelon	SPM

Country	Code
Saint Vincent and the Grenadines	VCT
Saint-Barthélemy	BLM
Saint-Martin (French part)	MAF
Samoa	WSM
San Marino	SMR
Sao Tome and Principe	STP
Saudi Arabia	SAU
Senegal	SEN
Serbia	SRB
Seychelles	SYC
Sierra Leone	SLE
Singapore	SGP
Slovakia	SVK
Slovenia	SVN

Country	Code
Solomon Islands	SLB
Somalia	SOM
South Africa	ZAF
Spain	ESP
Sri Lanka	LKA
Sudan	SDN
Suriname	SUR
Svalbard and Jan Mayen Islands	SJM
Swaziland	SWZ
Sweden	SWE
Switzerland	CHE
Syrian Arab Republic	SYR
Tajikistan	TJK
Thailand	THA

Country	Code
The former Yugoslav Republic of Macedonia	MKD
Timor-Leste	TLS
Togo	TGO
Tokelau	TKL
Tonga	TON
Trinidad and Tobago	TTO
Tunisia	TUN
Turkey	TUR
Turkmenistan	TKM
Turks and Caicos Islands	TCA
Tuvalu	TUV
Uganda	UGA
Ukraine	UKR
United Arab Emirates	ARE

Country	Code
United Kingdom of Great Britain and Northern Ireland	GBR
United Republic of Tanzania	TZA
United States of America	USA
Uruguay	URY
Uzbekistan	UZB
Vanuatu	VUT
Venezuela (Bolivarian Republic of)	VEN
Viet Nam	VNM
Wallis and Futuna Islands	WLF
Western Sahara	ESH
Yemen	YEM
Zambia	ZMB
Zimbabwe	ZWE

Source: United Nations, April 15, 2009 list. <http://unstats.un.org/unsd/methods/m49/m49alpha.htm>

U.S. Territories / Regions:

For the following U.S. territories / regions, the country code of USA within the [country](#) element should be used along with the applicable U.S. State abbreviation within the [stateorprovince](#) element.

Country	Country Code	U.S State Abbreviation
American Samoa	USA	AS
Federated States of Micronesia	USA	FM
Guam	USA	GU
Marshall Islands	USA	MH

Northern Mariana Islands	USA	MP
Puerto Rico	USA	PR
Palau	USA	PW
U.S. Virgin Islands	USA	VI

2.7 Registering an Activity for Maintenance of Certification in Ophthalmology (MOC)

Accredited CME providers can register activities for the American Board of Ophthalmology's (ABO) Maintenance of Certification (MOC) program using the PARS XML batch upload process, if they meet the program requirements, which are available at <http://www.accme.org/publications/abo-program-guide>.

Registering an activity for MOC is optional for the provider. If an activity is not being registered for MOC, then the MOCRegistrations element cannot be included in the activity record.

The fields below must be present in the XML for each activity that is being registered for MOC.

- a. LOM
 - i. **identifier**: identifier elements of container type "URL" and "Provider Activity ID" are required for reporting an activity URL.
- b. Healthcare Education
 - i. **targetAudience** must contain at least one "specialty" element with a valid ABOto practice area
 - ii. **startDateTime** is required
 - iii. **endDateTime** is required
- c. Extensible Information
 - i. **MOCRegistrations** must contain at least one "MOCRegistration" element
 - ii. **MOCRegistration** must contain:
 1. **boardName** with the name of a valid specialty board (ABO must appear, for ABO MOC registration)
 2. **mocPoints** with a numeric value of at least 0.25 representing the number of MOC points.
 3. **medicalKnowledgeApproval** with a value of true.
 - iii. **FeeForParticipation** must be included (either true or false)
 - iv. **ActivityRegistration** must be included (either "Open to all" or "Limited")

2.8 American Board of Ophthalmology (ABO) list of practice areas

The following list includes the names of all practice areas used in registering activities for ABO MOC.

Practice Areas
Comprehensive/General Ophthalmology
Cataract/Anterior Segment
Cornea/External Disease
Glaucoma
Neuro-Ophthalmology and Orbit
Oculoplastics and Orbit
Oncology
Pathology
Pediatric Ophthalmology/Strabismus
Retina/Vitreous
Refractive Management/Intervention
Uveitis
All Practice Areas