PARS Activity XML File Specification

Contents

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. In order 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 https://www.medbiq.org/standards, 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.

- **Maintenance of Certification:** Accredited CME providers have the option to register activities for those certifying boards participating in CME in support of MOC using the PARS XML batch upload process. Activities being registered for MOC must fulfill the requirements for the given board's MOC program. Information about CME in support of

MOC, including links to each board's requirements, is available at http://www.accme.org/cme-support-moc. Further information about formatting XML activity record to include MOC data can be found in *Appendix 2.7*.

Version History

Version	Date	Notes
1.4	10/19/2020	Added activity registration specifications to allow activities to be registered for the American Board of Surgery's Continuous Certification Program. Removed Self-Assessment as a credit type for the American Board of Pathology (discontinued as of 2021.)
1.3	05/20/2020	Updated ABPath practice area selections.
1.2	04/23/2020	Allowed uploads listing both ACCME Activity ID and Provider Activity ID to be accepted by PARS. Removed restrictions to allow ABO activities to be registered for both Improvement in Medical Practice and Patient Safety.
1.1	08/13/2019	Combined Activity XML File Specifications for registering activities in PARS to include MOC/CC registration for ABIM, ABP, ABA, ABPath, ABOHNS, and ABO into a single document.

1 XML File Specification Details

This document is a guide for those who wish to upload activities to PARS using XML-formatted data. 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 https://www.medbiq.org/standards.

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.

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	-	-
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	MedicalEducationMe tricstype	-	-

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 1st of the activity reporting year.	-ACCME will ignore the date portion of *ReportingStartDate*; the ACCME system will only import the Year portion -The Year portion of *ReportingStartDate* must be the same year as the Year portion of the *ReportingEndDate.* 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.
1.1.2	ReportingEndDate	Last day of the reporting period for the metrics described for the activity. For ACCME, this is expected to be December 31st of the activity reporting year.	-ACCME will ignore the date portion of *ReportingEndDate;* -ACCME will ignore the date portion of *ReportingStartDate*; the ACCME system will only import the Year portion -The Year portion of *ReportingEndDate* must be the same year as the Year portion of the *ReportingStartDate.* 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.	-

No	Element Name	Description	ACCME Business Rules
1.3	**PartcipationMetrics**	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	-
1.2.1	**Lom**	Container element. Refer to lom for sub-elements within this **c**ontainer	-
1.2.2	designedToChangeCompetence	Designed to Change Competence	-
1.2.3	changesInCompetenceMeasured	Changes in Competence Evaluated	-
1.2.4	designedToChangePerformance	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	Indicates the amount of commercial support received from a single source. This amount must be a whole number (no decimal values allowed). This sub-element has the following attributes: 1.　*currency* – Currency of the amount indicated. 2.　*supportSource*- Organization that is the source of commercial support.	-ACCME is interested in commercial support amounts in USD currency only. All other income specified in non-USD currencies will be ignored. -ACCME expects a USD currency amount >= 0.

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 1 *identifier* element per activity with a catalog value of either "ACCME Activity ID" or "Provider Activity ID" - ACCME Activity ID is assigned by PARS. "Provider Activity ID" should be used when adding a new activity record. Either "Provider Activity ID" or "ACCME Activity ID" or both can be used when updating an existing activity record. **When registering an activity for MOC** - An identier element with a catalog value of "URL" is required. **-** An identifier element with a catalog value of "Provider Activity ID" is required. This should be an internal identifier that your system assigns to uniquely identify an activity.
1.2.1.2.1.1	Catalog	Type of unique identifier.	-
1.2.1.2.1.2	Entry	Unique identifier for the activity.	- If catalog = "ACCME Activity ID", it is assumed that *entry* is unique in the entire system. - If catalog = "Provider Activity ID", it is assumed that *entry* 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.
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.
1.2.1.2.4	keyword	Element for collecting the MOCA Content Outline data. For the list of ABA MOCA Content Outline entries, please visit https://theaba.org/pdfs/MOCA_Content_Outline.pdf or https://www.accme.org/publications/aba-moca-excel-content-outline	**This element and corresponding sub-elements are only used when registering an activtity for ABA MOCA.** -Either one or two Content Outline entries are required for activities registered for MOCA. Each Content Outline selection requires three separate keyword elements in the XML record, one each with the id values "Level 3 ID", "Tag ID", and "Free Text". All three keyword elements must appear for each Content Outline entry.

No	Element Name	Description	ACCME Business Rules
1.2.1.2.4.1	id	Attribute used to designate the portion of the Content Outline entry included in this keyword.	-"Level 3 ID": the string value for the keyword with this id is the level 3 identifier number for the MOCA Content Outline entry. - "Tag ID": the string value for the keyword with this id is the tag identifier number for the MOCA Content Outline entry. Reporting a tag is optional, but a keyword for "Tag ID" must be included. The string value is left blank if no tag is reported. - "Free Text": the string value for the keyword with this id is the brief text description of the educational content. The string value is left blank if free text is not being reported.
1.2.1.2.4.2	source	Attribute used to indicate the Content Outline selection to which this keyword belongs.	-"01_ABAMCO" for the three keywords associated with the first Content Outline selection. - "02_ABAMCO" for the three keywords associated with a second Content Outline selection.
1.2.1.2.4.3	string	Attribute of keyword.	-Values to include for each keyword vary, please see the description of the id attribute above.
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.

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 *credits* element instances that have an *activityCertification* value of "AMA PRA Category 1". All other *activityCertification* 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 instance 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 *activitySponsorship* value of "joint"), ACCME optionally allows one nonAccreditedProvider element to be defined that indicates the joint provider's name for the activity. Separate multiple joint provider names with a semi-colon.
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 *activityFormat* value.

No	Element Name	Description	ACCME Business Rules
1.2.1.1.1.2.2	stateorprovince	Indicates state where in-person activity takes place.	-Check that stateorprovince is present depending on the *activityFormat* value. -If *country* 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 *startDateTime.* **Note**: startDateTime value must include BOTH the date and time components even though the ACCME upload process ignores the time portion of the value. Example: 2019-05-30T00:00:00.
1.2.1.1.1.4	endDateTime	Indicates the date and time an activity ends, or is no longer available for use by learners.	***This element is required for MOC activity registration.*** -ACCME will ignore the time portion of endDateTime, **Note**: endDateTime value must include BOTH the date and time components even though the ACCME upload process ignores the time portion of the value. Example: 2019-05-31T00:00:00
1.2.1.1.1.5	activitySponsorship	Providership. Valid values are "direct" or "joint".	-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.

No	Element Name	Description	ACCME Business Rules
1.2.1.1.1.6	activityFormat	Indicates the type of learning activity. There can be more than one activityFormat defined for an activity. ACCME expects that the activityFormat value used is one of the recognized ACCME activity types and, if applicable, sub-categories.	-*activityFormat* 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. -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. -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. -The system will check for a valid combination of recognized ACCME activity types and, if applicable, activity sub-categories (also see Appendix 2.5)*:* 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-*OtherEntry]* 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- *OtherEntry*] 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 o. Other + Other-*OtherEntry* *All other combinations are invalid.* Note: not all activity types are eligible for MOC for every board. See each board's requirements for MOC at https://www.accme.org/publications/cme-for-moc-program-guide

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 *commercialSupport* 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: -*activityDescription: commercialSupportAmount* -*Xtensible:numberCommercialSupporters* -*Xtensible*:totalMonetaryAmountReceived -*Xtensible*:durableEquipmentReceivedForActivity -*Xtensible*:spaceReceivedForActivity -*Xtensible*:disposableSuppliesReceivedForActivity -*Xtensible*:animalPartsOrTissueReceivedForActivity -*Xtensible*:humanPartsOrTissueReceivedForActivity -*Xtensible*:otherForActivity -*Xtensible:InKindSupport: durableEquipmentReceived* -*Xtensible:InKindSupport: spaceReceived* -*Xtensible:InKindSupport: disposableSuppliesReceived* -*Xtensible:InKindSupport: animalPartsOrTissueReceived* -*Xtensible:InKindSupport: humanPartsOrTissueReceived* -*Xtensible:InKindSupport: other*
1.2.1.1.1.8	**targetAudience**	Container element for listing the medical practice specialties for which the activity content is relevant.	-The *targetAudience* element and at least one specialty sub-element are required only if the activity is being registered for MOC.
1.2.1.1.1.8.1.	specialty	Name of a specialty for which the activity content is relevant.	***This element is required for MOC activity registration.*** The list of valid specialties for 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.	-

No	Element Name	Description	ACCME Business Rules
1.3.1	participantsByCategory	Defines the number of participants by category. The XSD file allows 0 or more participantsByCategory elements. This sub-element has the following attributes: 1. *category*-Indicates the participant category described.	-System will ignore any *participantsByCategory* instances that have a category that is not "physician" or "non-physician". -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. -The "physician" category definition: the number of MD's and DO's that participated in the activity. Residents are included in this category. -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. Do not include residents in this category.

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.*Source* - 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	-
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	-

No	Element Name	Description	Min Occurs	Max Occurs	Type	Enumeration/Valid Values	ACCME Business Rules
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	humanPartsOrTissue Received	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	patientCareAndProcedural Skills	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	practiceBasedLearningAnd Improvement	Indicates if activity addressed Practice-based Learning and Improvement.	0	1	Boolean	true, false	-
1.5.4	interpersonalAnd CommunicationSkills	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	-
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	employEvidenceBased Practice	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	-

No	Element Name	Description	Min Occurs	Max Occurs	Type	Enumeration/Valid Values	ACCME Business Rules
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	-	Optional; not required for activity registration, but required for activity to be registered for MOC
1.9.1.1	MOCRegistration	Container element.	0	unbounded	Container	-	One per specialty board. At present, only one *MOCRegistration* 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	ABA, ABIM, ABO, ABOHNS, ABP, ABPATH, ABS	Seven boards are currently accepting activities registered in PARS.
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 MOC Part 2 (medical knowledge/lifelong learning).	0	1	Boolean	true, false	Business rules for MOC credit types will vary by board. See Appendix 2.9 for a list of MOC credit types by board.

No	Element Name	Description	Min Occurs	Max Occurs	Type	Enumeration/Valid Values	ACCME Business Rules
1.9.1.1.4	practiceAssessmentApproval	Indicates whether the activity is registered for MOC Part 4 (practice assessment).	0	1	Boolean	true, false	Business rules for MOC credit types will vary by board. See Appendix 2.9 for a list of MOC credit types by board.
1.9.1.1.5	patientSafetyApproval	Indicates whether the activity is registered for MOC patient safety credit.	0	1	Boolean	true, false	Business rules for MOC credit types will vary by board. See Appendix 2.9 for a list of MOC credit types by board.
1.9.1.1.6	selfAssessmentModule Approval	Indicates whether the activity is registered as a Self-Assessment Module (SAM).	0	1	Boolean	true, false	Business rules for MOC credit types will vary by board. See Appendix 2.9 for a list of MOC credit types by board.
The following two elements are required for registration of MOC activities							
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 <u>Open and Closed Activities</u>

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 *Note: This field is required by the MedicalEducationMetrics specification, but it will not be displayed on the PARS system.*	Yes *Note: This field is required by the MedicalEducationMetrics specification, but it will not be displayed on the PARS system.*
identifier	Yes	Yes
title	Yes	Yes
startDateTime	Yes	Yes
city	Required if the ActivityFormat is one of the following: • Course • Regularly Scheduled Series For other ActivityFormats data should not be entered	Required if the ActivityFormat is one of the following: • Course • Regularly Scheduled Series For other ActivityFormats data should not be entered
stateorprovince	Required if the ActivityFormat is one of the following: • Course • Regularly Scheduled Series For other ActivityFormats data should not be entered	Required if the ActivityFormat is one of the following: • Course • Regularly Scheduled Series For other ActivityFormats data should not be entered
country	Required if the ActivityFormat is one of the following: • Course • Regularly Scheduled Series For other ActivityFormats data should not be entered	Required if the ActivityFormat is one of the following: • Course • Regularly Scheduled Series For other ActivityFormats data should not be entered
activitySponsorship	No	Yes *(Note: "sponsorship" is now displayed on the PARS system as "providership")*
activityFormat	Yes	Yes
duration	No	Yes
participantsByCategory	No	Yes, the system requires data for one category of "physician" and one category of "non-physician" *(Note: "non-physician" is now displayed on the PARS system as "other learners")*
commercialSupport	No	Yes
designedToChangeCompetence	No	Yes
changesInCompetenceMeasured	No	Yes
designedToChangePerformance	No	Yes
changesInPerformanceMeasured	No	Yes
designedToChangePatientOutcomes	No	Yes
changesInPatientOutcomesMeasured	No	Yes

Field Name	Data is Required in Field:	
	To Open Activity Record	To Close Activity Record
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	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.
disposableSuppliesReceived	No	
animalPartsorTissueReceived	No	
humanPartsorTissueReceived	No	
spaceReceived	No	If commercialSupport is "No", then no data should be entered in these fields.
other	No	
patientCareAndProceduralSkills	No	At least one competency must be "Yes."
medicalKnowledge	No	
practiceBasedLearningAndImprovement	No	
interpersonalAndCommunicationSkills	No	
professionalism	No	
systemsBasedPractice	No	
providePatientCenteredCare	No	
workInInterdisciplinaryTeams	No	
employEvidenceBasedPractice	No	
applyQualityImprovement	No	
utilizeInformatics	No	
valuesEthicsForInterprofessionalPractice	No	
rolesResponsibilities	No	
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.
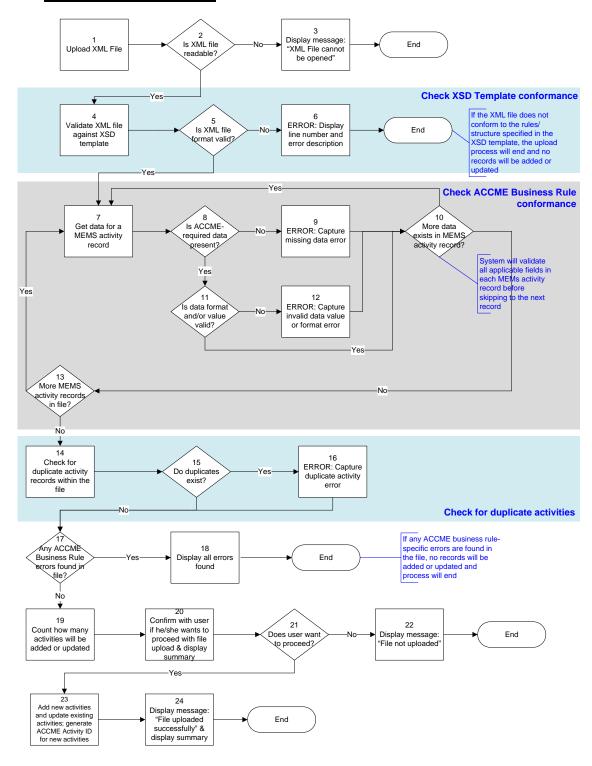
2. Adding a New Activity

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

2.3 Process Flow Diagram

Check XSD Template conformance

If the XML file does not conform to the rules/structure specified in the XSD template, the upload process will end and no records will be added or updated

Check ACCME Business Rule conformance

System will validate all applicable fields in each MEMs activity record before skipping to the next record

Check for duplicate activities

If any ACCME business rule-specific errors are found in the file, no records will be added or updated and process will end

Process Flow Diagram nodes:
- 1 Upload XML File
- 2 Is XML file readable?
- 3 Display message: "XML File cannot be opened" → End
- 4 Validate XML file against XSD template
- 5 Is XML file format valid?
- 6 ERROR: Display line number and error description → End
- 7 Get data for a MEMS activity record
- 8 Is ACCME-required data present?
- 9 ERROR: Capture missing data error
- 10 More data exists in MEMS activity record?
- 11 Is data format and/or value valid?
- 12 ERROR: Capture invalid data value or format error
- 13 More MEMS activity records in file?
- 14 Check for duplicate activity records within the file
- 15 Do duplicates exist?
- 16 ERROR: Capture duplicate activity error
- 17 Any ACCME Business Rule errors found in file?
- 18 Display all errors found → End
- 19 Count how many activities will be added or updated
- 20 Confirm with user if he/she wants to proceed with file upload & display summary
- 21 Does user want to proceed?
- 22 Display message: "File not uploaded" → End
- 23 Add new activities and update existing activities; generate ACCME Activity ID for new activities
- 24 Display message: "File uploaded successfully" & display summary → End

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: 200000999, 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: 200000999, - Invalid data value/format for
   ActivityDescription/lom:lom/hx:healthcareMetadata/hx:healthcareEducation/hx:activityLocation/ad:State
   OrProvince: 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: 20000088888, 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: 200000999, 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 2016 or laterusing 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: 20194. To upload activities for Reporting Year 2019, 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: 2018. You cannot add or update activities for 2018 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=200000999, Provider ID=, Reporting Year=2019, Activity Type=Course, Activity Date=2019-05-30T00:00:00"

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=2019, Activity Type=Course, Activity Date=2019-05-30T00:00:00"

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	List of Course sub-categories are: Panel | Lecture | Small group discussion | Case based discussion | Simulation | Skill-based training | Other-*OtherEntry* *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.*
Regularly Scheduled Series	Not applicable
Internet Live Course	List of Internet Live Course sub-categories are: Panel | Lecture | Small group discussion | Case based discussion | Simulation | Skill-based training | Other-*OtherEntry* *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.*
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
Other	A sub-category of Other-*OtherEntry* is required for the Other activity type, where OtherEntry is activity type description

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

Country	Code
Ghana	GHA
Gibraltar	GIB
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
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	LBY
Liechtenstein	LIE
Lithuania	LTU
Luxembourg	LUX

Country	Code
Macao Special Administrative Region of China	MAC
Madagascar	MDG
Malawi	MWI
Malaysia	MYS
Maldives	MDV
Mali	MLI
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
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

Country	Code		Country	Code
Qatar	QAT		Swaziland	SWZ
Republic of Korea	KOR		Sweden	SWE
Republic of Moldova	MDA		Switzerland	CHE
Réunion	REU		Syrian Arab Republic	SYR
Romania	ROU		Tajikistan	TJK
Russian Federation	RUS		Thailand	THA
Rwanda	RWA		The former Yugoslav Republic of Macedonia	MKD
Saint Helena	SHN		Timor-Leste	TLS
Saint Kitts and Nevis	KNA		Togo	TGO
Saint Lucia	LCA		Tokelau	TKL
Saint Pierre and Miquelon	SPM		Tonga	TON
Saint Vincent and the Grenadines	VCT		Trinidad and Tobago	TTO
Saint-Barthélemy	BLM		Tunisia	TUN
Saint-Martin (French part)	MAF		Turkey	TUR
Samoa	WSM		Turkmenistan	TKM
San Marino	SMR		Turks and Caicos Islands	TCA
Sao Tome and Principe	STP		Tuvalu	TUV
Saudi Arabia	SAU		Uganda	UGA
Senegal	SEN		Ukraine	UKR
Serbia	SRB		United Arab Emirates	ARE
Seychelles	SYC		United Kingdom of Great Britain and Northern Ireland	GBR
Sierra Leone	SLE		United Republic of Tanzania	TZA
Singapore	SGP		United States of America	USA
Slovakia	SVK		Uruguay	URY
Slovenia	SVN		Uzbekistan	UZB
Solomon Islands	SLB		Vanuatu	VUT
Somalia	SOM		Venezuela (Bolivarian Republic of)	VEN
South Africa	ZAF		Viet Nam	VNM
Spain	ESP		Wallis and Futuna Islands	WLF
Sri Lanka	LKA		Western Sahara	ESH
Sudan	SDN		Yemen	YEM
Suriname	SUR		Zambia	ZMB
Svalbard and Jan Mayen Islands	SJM		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/Continuing Certification

Accredited CME providers can register activities for a participating board's Maintenance of Certification (MOC)/Continuing Certification (CC) program using the PARS XML batch upload process, as long as they meet the requirements outlined in the board's program guide. More information including the CME for MOC program guide is available at http://accme.org/cme-support-moc.

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

Some activity types cannot be registered for specific boards. Acceptable activity types are listed in the MOC program guide accessible through the ACCME website.

The fields below must be present in the XML for each activity that is being registered for MOC.
- a. LOM
  - i. **identifier**: an additional identifier element of container type "URL" is required for reporting an activity URL.
- b. Healthcare Education
  - i. **targetAudience** must contain at least one "specialty" element
  - ii. **endDateTime** is required
- c. Extensible Information
  - i. **MOCRegistrations** must contain at least one "MOCRegistration" element
  - ii. **MOCRegistration** must contain:
    1. "**specialtyBoard**" with the name of a valid specialty board (valid specialty boards are: ABA, ABIM, ABO, ABOHNS, ABP, ABPATH, ABS)
    2. "**mocPoints**" with a number of at least 0.25 representing the number of MOC points.
    3. At least one but no more than three of elements 1.9.1.1.3-1.9.1.1.6, consistent with a given specialtyBoard's defined credit types listed in Appendix 2.9.Valid approval fields and combinations are board specific.
  - iii. **FeeForParticipation** must be included (either true or false)
  - iv. **ActivityRegistration** must be included (either "Open to all" or "Limited")

2.8 MOC specialties by board

American Board of Internal Medicine (ABIM) list of specialties
These values are used in the specialty sub-element when reporting activities registered for ABIM MOC.

Specialty
Adolescent Medicine
Adult Congenital Heart Disease
Advanced Heart Failure and Transplant Cardiology
Cardiovascular Disease
Clinical Cardiac Electrophysiology
Critical Care Medicine
Endocrinology, Diabetes, and Metabolism
Gastroenterology
Geriatric Medicine
Hematology
Hospice and Palliative Medicine
Hospital Medicine

Infectious Disease
Internal Medicine
Interventional Cardiology
Medical Oncology
Nephrology
Pulmonary Disease
Rheumatology
Sleep Medicine
Sports Medicine
Transplant Hepatology

American Board of Anesthesiology (ABA) list of practice areas
These values are used in the specialty sub-element when reporting activities registered for ABA MOCA.

Specialty
Ambulatory/Outpatient
Cardiac Anesthesia
Critical Care Medicine
General Operative Anesthesia
Hospice and Palliative Medicine
Neuro Anesthesia
Obstetric Anesthesia
Pain Medicine
Pediatric Anesthesia
Regional Anesthesia/Acute Pain
Sleep Medicine
Thoracic Anesthesia
Trauma

American Board of Ophthalmology (ABO) list of practice areas
These values are used in the specialty sub-element when reporting activities registered 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

American Board of Otolaryngology-Head & Neck Surgery (ABOHNS) list of practice areas
These values are used in the specialty sub-element when reporting activities registered for ABOHNS CC

Practice Areas
Allergy
Facial Plastic & Reconstructive Surgery
Head & Neck
Laryngology
Otology
Neurotology
Pediatric Otolaryngology
Rhinology
Sleep Medicine
General Otolaryngology

American Board of Pathology (ABPath) list of practice areas

These values are used in the specialty sub-element when reporting activities registered for ABPath CC

Practice Areas
All Practice Areas (e.g. ethics)
Blood Bank/ Transfusion Medicine
Breast
Cardiovascular
Chemical Pathology
Clinical Informatics
Cytopathology
Dermatopathology
Endocrine
Female Reproductive
Forensic Pathology
GI (incl. Liver, Pancreas, Bilary)
Head & Neck/ Oral
Hematology (Blood, BM)
Hematopathology (LN, Spleen)
Hemostasis & Thrombosis/Coagulation
Infectious Diseases/ Medical Microbiology
Lab Management
Male Genital
Medical Director
Molecular Genetic Pathology
Neuropathology (incl. Neuromuscular)
Other
Patient Safety
Pediatric Pathology
Placenta
Pulmonary, Mediastinum
Renal/Medical Renal
Soft Tissue & Bone
Surgical Pathology
Transplant Pathology
Urinary Tract

American Board of Pediatrics (ABP) list of interest areas

These values are used in the specialty sub-element when reporting activities registered for ABP MOC.

Specialty
Adolescent Medicine
Child Abuse Pediatrics
Clinical Informatics
Developmental-Behavioral Pediatrics
General Pediatrics
Hospice & Palliative Medicine
Hospital Medicine
Medical Toxicology
Neonatal-Perinatal Medicine
Neurodevelopmental Disabilities
Pediatric Cardiology
Pediatric Critical Care Medicine
Pediatric Emergency Medicine
Pediatric Endocrinology
Pediatric Gastroenterology
Pediatric Hematology-Oncology
Pediatric Infectious Diseases
Pediatric Nephrology
Pediatric Neurology
Pediatric Pulmonology
Pediatric Rheumatology

Specialty
Pediatric Transplant Hepatology
Professionalism/Patient Safety/Other Skills
Sleep Medicine
Sports Medicine

American Board of Surgery (ABS) list of practice areas

These values are used in the specialty sub-element when reporting activities registered for ABS CC

Practice Areas
Complex General Surgical Oncology
General Surgery
Hand Surgery
Hospice & Palliative Medicine
Pediatric Surgery
Surgical Critical Care
Vascular Surgery

2.9 Credit types for MOC registration

Each board participating in CME in support of MOC has defined one or more credit types specific to the MOC program. The requirements for each of these types can be found in the board's program guide, which is accessible at http://accme.org/cme-support-moc. These types can be indicated in the XML using a combination of the elements *medicalKnowledgeApproval, practiceAssessmentApproval, patientSafetyApproval,* and *selfAssessmentModuleApproval.* MOC registration for each board requires at least one element indicating the appropriate credit type. The corresponding credit types and elements are as indicated below.

Board Name	MOC Credit Type	Corresponding Element	Additional Business Rules
American Board of Anesthesiology	Medical Knowledge	*medicalKnowledgeApproval*	
	Patient Safety	*patientSafetyApproval*	Patient Safety can only be submitted in combination with another credit type
American Board of Internal Medicine	Medical Knowledge	*medicalKnowledgeApproval*	
	Practice Assessment	*practiceAssessmentApproval*	
	Patient Safety	*patientSafetyApproval*	Patient Safety can only be submitted in combination with another credit type
American Board of Ophthalmology	Lifelong Learning	*medicalKnowledgeApproval*	All ABO activities must at minimum meet the requirements of Lifelong Learning. Lifelong Learning is required for ABO registration.
	Self-Assessment	*selfAssessmentModuleApproval*	
	Improvement in Medical Practice	*practiceAssessmentApproval*	
	Patient Safety	*patientSafetyApproval*	
American Board of Otolaryngology – Head and Neck Surgery	Lifelong Learning	*medicalKnowledgeApproval*	
	Improvement in Medical Practice	*practiceAssessmentApproval*	
	Patient Safety	*patientSafetyApproval*	Patient Safety can only be submitted in combination with another credit type

American Board of Pathology	Lifelong Learning	*medicalKnowledgeApproval*	All ABPath activities must at minimum meet the requirements of Lifelong Learning. Lifelong Learning is required for ABPath registration.
	Improvement in Medical Practice	*practiceAssessmentApproval*	
American Board of Pediatrics	Medical Knowledge	*medicalKnowledgeApproval*	
American Board of Surgery	Lifelong Learning	*medicalKnowledgeApproval*	All ABS activities must at minimum meet the requirements of Lifelong Learning. Lifelong Learning is required for ABS registration.
	Self-Assessment Module	*selfAssessmentModuleApproval*	