EPIC[®] GUIDE

AXIAL SPONDYLOARTHRITIS (AxSpA) SCREENING TOOL

This build guide provides an overview with which to develop an electronic health record (EHR) screening tool using a SmartForm to determine if adults with chronic back pain should be evaluated by a rheumatologist for axSpA as a potential cause for their symptoms. The tool is not intended to be used for diagnosis or clinical assessment.

Role of SmartForm

SmartForm is a clinical decision support tool that enables healthcare providers to document clinical encounters more efficiently. The forms are customizable templates that include dynamic fields, checklists, and dropdowns to facilitate documentation of relevant information based on patient specific data.

What is Axial Spondyloarthritis?

AxSpA is a chronic inflammatory disease that mainly affects the spine and the joints that connect the bottom of the spine to the pelvis (sacroiliac joints), causing longstanding back pain, stiffness, and limited mobility. It is a systemic disease, which means it may affect other joints, body parts, and organs. AxSpA is an under-recognized disease in non-rheumatology practices because of its heterogeneous clinical features that may be difficult to identify.

There are two types of axSpA:

- Ankylosing spondylitis (AS), also known as radiographic axSpA, causes damage to the sacroiliac joints that can be seen on x-rays.
- Nonradiographic axSpA (nr-axSpA) causes damage that may not be visible on x-rays but may appear on magnetic resonance images (MRIs).

SMARTFORM BUILD

- Open new form in SmartForm designer. If no specific context is needed, use the General Form type and create in Advanced mode.
- Create a table and specify 2 columns and 10 rows.

X Cut				
Cut				
Paste				· · · · · · · · · · · · · · · · · · ·
Add		Table	►	Above
Split	▶₹	Row	•	Below
Enclose	Ш	Column		
X Delete	▶	Cell		
Remove Compoment		Formlet		
Remove Formlet		Check Box		
📙 Save as Formlet		Command Button		
😋 Scripting	δ	l Draw		
Rename Component		Field		
Copy Properties	-	, Hyperlink		
Apply Properties	O	Image		
	0:0	1 Instant		
	A	Label		
		List		
	+	Positive/Negative		
		SmartGrid		
	Ē	SmartText Box		
		Timespan		
	Y	Yes/No		

This image is intended for illustrative purposes only.

- Left click on the green + icon in the first row and first column, then click the Yes/No option.
- With the Yes/No button you just added, click the Data Tab on the right and choose a Boolean type element to bind to. Set the context – Encounter is most appropriate here.
- Utilize the SmartData Manager to create SmartData Elements to bind to the form components. Find an appropriate location for new fields in the SmartData tree and create new elements with a type of Boolean for the Yes/No fields and Number for any numeric fields on the form.

Element Text	S <u>u</u> mmary E/ <u>M</u> Coding
Name:	PSORIASIS
Abbreviation:	
Search Terms:	1
Description:	
Data type:	Boolean 🔎 🗹 Mappable
Master file:	
ltem:	
Category list:	

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SMARTFORM BUILD

- On the properties tab, format the component. Add the appropriate prompt text in the prompt field and choose a prompt width and width of the entire element.
- Once aligned with the formatting of this field, right click on it and select copy. Then right click and paste onto the other elements in the first column of the table.
- Replace the prompt text and bound element on each row so they are all unique.

X-Ray/MRI sacroiliitis	Yes No
Elevated ESR/CRP	Yes No
HLA-B27+	Yes No
Uveitis	Yes No
IBD	Yes No
Psoniasis	Yes No
Back pain improvement with NSAIDs	Yes No
Back pain improvement with exercise, not with rest	Yes No
Alternating buttock pain	Yes No
Fam Mx axial spondyloarthritis/uveitis/psoriasis/IBD	Yes No

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- Add a new row below the table to store the calculated score. Do this by selecting the table and adding it below so the new row is not in the table.
- Split the new element into two new columns. This will allow you to adjust the width of the new field component.



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CRP, c-reactive protein; ESR, erythrocyte sedimentation rate; HLA-B27, human leukocyte antigen B27; IBD, inflammatory bowel disease; MRI, magnetic resonance imaging; NSAID, nonsteroidal anti-inflammatory drugs.

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SMARTFORM BUILD

 Left click on the left column in this new row and add a Field component. Double click on it and change the field type from Base to Number entry.

Show selection	Number Entry		
Numeric entry			
Decimal places:	0		
Minimum:			
Maximum:			
🗆 Use Medical F	ormat		
Display separ	tor		

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- Format the properties to match the formatting of the Yes/No components. Change the Enabled property to No-this prevents a user from manually entering a value for a field that should only calculate its own value.
- Bind a number type SmartData Element to your score field.
- In order to set up the scripting to calculate the score, assign the points for each Yes value by adding a numeric component in the second column on the table for each of the Yes/No components.
- Starting in the first row of the table's second column, next to the X-Ray/MRI sacroiliitis component left click on the green + and add a field component. Double click to open the property page and change the type to number entry. Then on the Properties tab change the Visible property to No.

Properties Data	Painter
Back color	unspecified
* Border	(Property page)
Collapsed	No
Collapsible	No
Component indent	1px
Enabled	Yes
* Field properties	(Property page)
Height	100%
Padding	
Prompt	
* Prompt font	(Property page)
Prompt indent	1px
Prompt position	Top aligned
* Prompt type	Normal
Prompt width	20%
Requirements	None
* Section highlight	No
Show comment	No
Tooltip text	
Visible	No
Width	50%

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SMARTFORM BUILD

- Copy and paste the row into the remaining 9 components and replace the SmartData binding for each one so they are all unique.
- Navigate to the Scripting tab of the Yes/No component, select ValueLoadedOrChanged, then Add Condition and Add Check.



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• Set the Operator in the logic check to Equals and click the Yes button to check for a value of Yes.

Actions	Condition			
E···· Condition1	Name:	Condition1		
False Branch	Type:	lf	Q	
	Checks			
	1 Check	1 Name:	Check1	
		Type:	Check Component Data Value	Q
		Component:	YesNo0	Q
		Which:	Value	Q
		Operator:	Equals	Q
		Value:		

This image is intended for illustrative purposes only.

- Click on True Branch, then click Add Action. Change the component to the invisible field directly to the right
 of the Yes/No button.
- Click the Overwrite checkbox, and then type the point value corresponding with the Yes/No column the field is paired with in the Value box.

Action		
Name:	Action1	
Туре:	Set Component Data Value	Q
Set Value		
Componen	t:	Field1
Which:		Value
Options:		🔽 Overwrite
		Limit chained scripting event
Value:		
3		

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SMARTFORM BUILD

• Next, under the False branch, add the same logic but with a value for 0. This sets the value of this score component to 0 when Yes is not selected.

esNoO - ValueLoadedOrCharged			
ctions	Action		
Condition1	Name: Acti	n 2	
Action1	Type: Set	omponent Data Value	Q
False Branch Action 2	Set Value		
ACTIONZ	Component:		Field1
	Which:		Value
	Options:		🔽 Overwrite
			🔲 Limit chained scripting event
	Value:		
	0		

This image is intended for illustrative purposes only.

- Repeat this for each Yes/No component, ensuring that the score value you assign corresponds with that component and that the score is being applied to the appropriate hidden field component.
- Click on the score field and go to the Scripting tab. Left click the Calculate node under the field on the left, then click Add Action. Add the values of the 10 fields to set values into when Yes is clicked.

Actions		
ACTIONS	Action	
···· Action1	Name: Action 1 Type: Calculate Value	
	Calculate Value	
	Set component:	Field0
	Options:	Require all components values exist
	Expression	
	Field1 + Field2 + Field3 + Field4	I + Field5 + Field6 + Field7 + Field8 + Field9 + Field10 Preview
	Clear Backspace	Add Component
	Action1	Action1 Name: Action 1 Type: Calculate Value Calculate Value Set component: Options: Expression Field1 + Field2 + Field3 + Field4 Clear Backspace

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- Use the Preview tab to ensure that the components all behave correctly and that the score calculates the correct value.
- When the form is validated as working correctly, click the Release checkbox and Accept to create the form and make it available for use.

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FINAL SMARTFORM

Designer Preview	Scr <u>i</u> pting	
X-Ray/MRI sacroiliitis	Yes No	
Elevated ESR/CRP	Yes No	
HLA-B27+	Yes No	
Uveitis	Yes No	
IBD	Yes No	
Psoniasis	Yes No	
Back pain improvement with NSAIDs	Yes No	
Back pain improvement with exercise, not with rest	Yes No	
Alternating buttock pain	Yes No	
Fam Mx axial spondyloarthritis/uveitis/psoriasis/IBD	Yes No	
Score		

This image is intended for illustrative purposes only.

Preview of form in web activity:

X-Ray/MRI sacroiliitis	Yes No
Elevated ESR/CRP	Yes No
HLA-B27+	Yes No
Uveitis	Yes No
IBD	Yes No
Psoniasis	Yes No
Back pain improvement with NSAIDs	Yes No
Back pain improvement with exercise, not with rest	Yes No
Alternating buttock pain	Yes No
Fam Mx axial spondyloarthritis/uveitis/psoriasis/IBD	Yes No
Score	0

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NAVIGATOR FILTER STEPS:

- Create a copy of LPP 23003 MR RULE-BASED NAVIGATOR SECTION FILTER.
- Create a Patient context rule and add any criteria that should show/hide the navigator section to which the filter LPP will be attached. An example is shown below for patients 18 years or older and who have a psoriasis diagnosis in their problem list.

ihow Parameter Value		
# Property	Operator	Value
1 Patient » 🌈	>=	18
Age: Years		
² Patient »	=	YES [1]
🖋 Has Problem From Project Grouper		
Grouper		
EDG CONCEPT HX PSORIASIS [2		
Problem Status		
Problem Class		

This image is intended for illustrative purposes only.

• Link the rule to your navigator filter LPP.

1	Parameter	Value [E13] -Extended Entry
1. 2	Invert Rule Logic?	4243135-Navigator Filter Example
3.	Filter Context	

- By default, the filter will *show* the navigator section to which it's linked when the rule is true and hide when it is false. Set the invert rule logic field accordingly.
- Link the filter LPP in the navigator you want to conditionally show.

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Novartis Pharmaceuticals Corporation East Hanover, New Jersey 07936-1080