

# Creating posters using **Publisher 2016**



## Introduction

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Microsoft Publisher is an accessible and effective tool for creating posters. During our hands-on, tutor led workshop, you will have the opportunity to create an A0 research poster using Publisher. We will give you a scaled down copy of the final poster. Use this for reference as you work through the workbook exercises.

We will also give you general design advice on layout, fonts and font size, and use of colour and visuals to help ensure your poster creates a lasting impression.

## Prerequisite knowledge

Although no previous knowledge of Publisher is required, you should be familiar with Microsoft Word and the Windows environment, including file management. Tutors will be on hand to help during the workshop. Please ask!

## What you will learn

By the end of this workshop you will be able use MS Publisher 2016 to:

- set up a custom poster size
- use grids and guides to help align text boxes and images
- change backgrounds
- apply and modify inbuilt text styles
- insert text from Word and work with text boxes
- format text boxes using the Format Painter
- insert charts from Excel
- insert and position images
- link text boxes to create a text flow

## Exercises

To get the most from this workshop session, please work sequentially through the workbook exercises. The steps you need to take to work through each exercise are clearly marked with bullet points.

## Approximate time

It should take you just over 90 minutes to complete these exercises; however, we have designed the workbook so that you can continue to work at your own pace, away from the workshop.

## Hints & warnings

Look out for **hints and explanatory text** and **warnings**. We use these throughout the workbook to bring various points to your attention.



Hints and explanatory text



Warnings

# 1 Download workshop files

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To save you time, we provide you with ready prepared text, images, charts and tables. You will use these to create your workshop poster.

The files you will require are:

- AAM-DXA.tif
- KL\_grade.xlsx
- fig\_captions.docx
- poster\_text.docx
- tmrc.tif
- uni-logo-col.png

*Before* beginning this workbook, download the 6 workshop files from our website and save them to your Home Filespace (**H:** drive).

- Open Internet Explorer and navigate to:  
**<https://abdn.ac.uk/it/services/training/dundee>**
- Click **Download course files**
- Click **Save as**
- In the **Save As** dialog box, navigate to your **H:** drive and then click **Save**
- Close Internet Explorer
- Navigate to your **H:** drive and right-click on your **course-files.zip** folder
- Select **Extract all...**
- Make sure files will be extracted to your **H:** drive and click **Extract**

This may take a few minutes. Once you have saved all the workshop files to your H: drive, start the workbook exercises on page 3 of your workbook.



If you have any problems during the workshop, please ask a tutor for help.

## 2 Start Publisher and set up a new template

### 2.1 Start Publisher

- Launch **Publisher** from the Start Menu:  
**Start > All apps > Publisher 2016**
- Publisher will open.

### 2.2 Set up a custom template for your poster

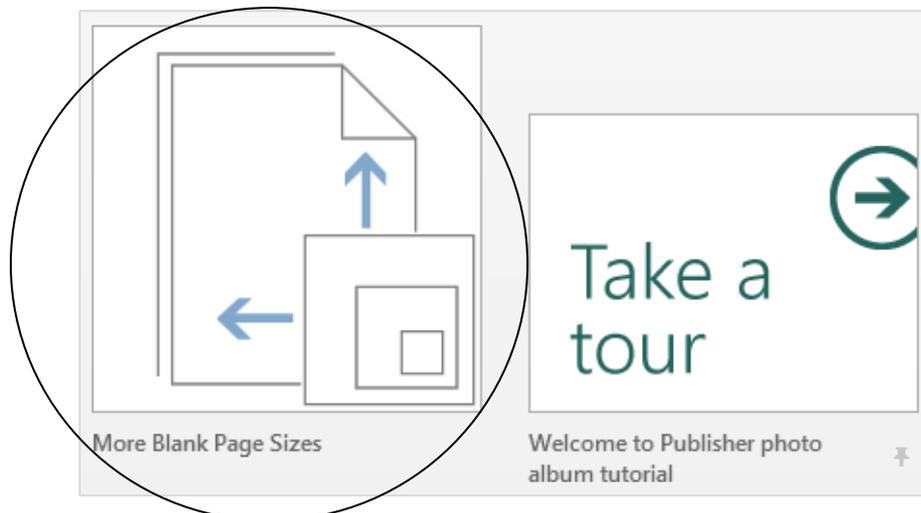


Conference organisers often provide guidelines for poster presentations, e.g. size, orientation (landscape or portrait), title placement and font size.

You will now specify a size for your poster.

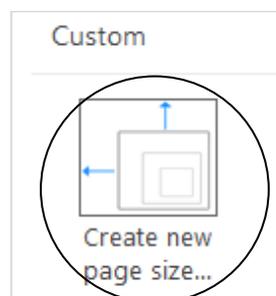
- Click **More Blank Page Sizes** (Figure 1).

Figure 1: Available templates.



- Under **Custom**, select **Create new page size...** (Figure 2).

Figure 2: Create a custom page size.



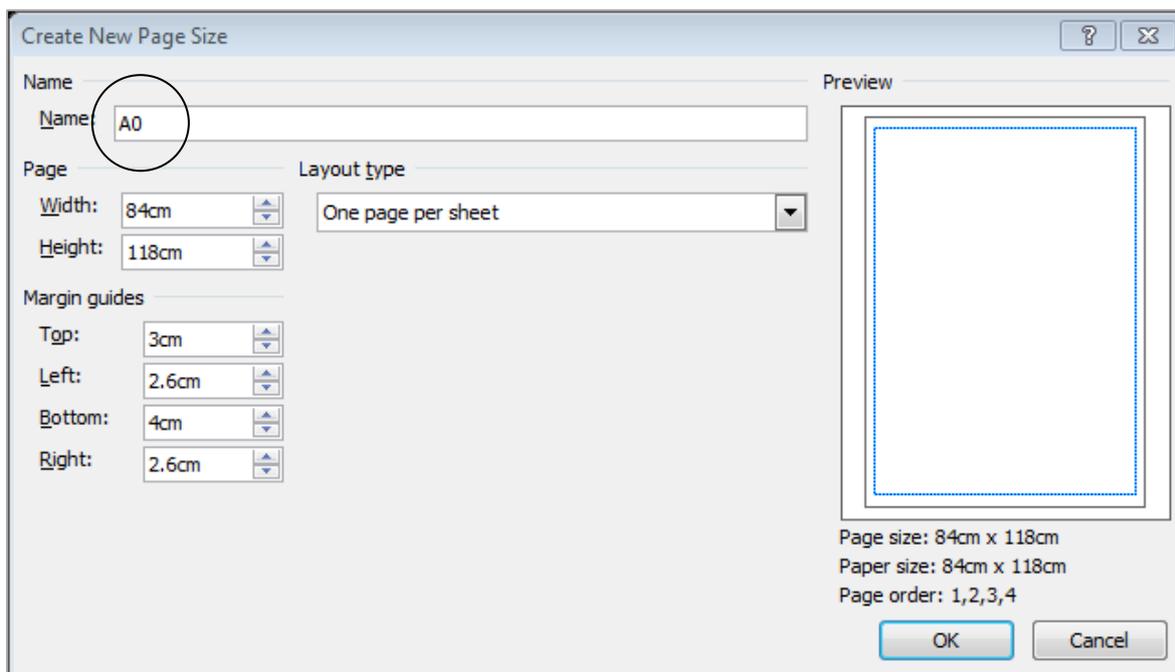
Today you will create a **portrait A0** poster template, which measures 118cm (height) by 84cm (width).



Always check size and layout requirements with your supervisor/conference organiser.

- Name your new page size as **A0** (Figure 3).
- In the **Width:** box type **84cm** and in the **Height:** box type **118cm**.
- Set up your margins as follows:
  - **Top: 3cm**
  - **Left: 2.6cm**
  - **Bottom: 4cm**
  - **Right: 2.6cm**

Figure 3: Set up your custom poster size.



- Click **OK**.  
You have now set up a new poster template named A0. Use this template anytime you want to create a new A0 poster.

### Poster size information

For future reference, common poster sizes include **A0**, **A1** and **A2**.

Paper size:	A0	A1	A2
Width (cm)	84	59	42
Height (cm)	118	84	59



For landscape posters, swap the width and height values e.g. a **landscape A0** poster measures 84cm (height) by 118cm (width).

### 3 Create a new poster based on your template

Once you have created an A0 template, you can use it to create a new poster with the dimensions and margins that you specified earlier.

- Click once on your new custom page size **A0** (Figure 4). Do not double-click.

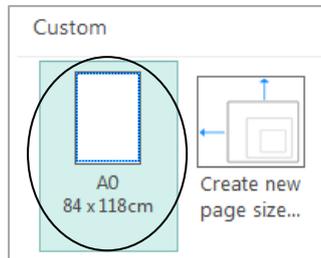


Figure 4: Select your new A0 template.



At this point, you can select the colour and font schemes that you will use for your poster. Schemes work in a similar way to themes in MS Word and PowerPoint.

- Click on the drop-down arrow under **Color scheme** on the right of the screen.
- Select **Office** from the list of schemes.
- Click on the drop-down arrow under **Font scheme**.
- Scroll down the menu until you reach the bottom of the list.
- Click **Create new...**
- Set up your font scheme as follows:
  - For **Heading font:** select **Impact**
  - For **Body font:** select **Arial**
  - For **Font scheme name:** type in **Academic Poster**
- Click **Save**.
- Click **Create** (Figure 5).

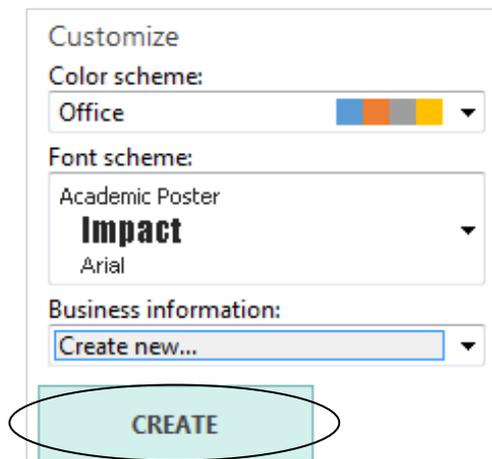


Figure 5: Create your A0 poster.

A blank poster will open.



You can change your font and colour scheme at any point by clicking on the **Page Design** tab.

## 4 Set up grids and guides

Use Publisher's **grids** and **guides** to help you align text boxes and other objects on your poster. **Grids** and **guides** appear as thin dotted lines on-screen. You can specify exact positions or allow Publisher to calculate column widths/row heights for you.

### 4.1 Set drawing grids and guides

To set the drawing grids and guides for a 2-column layout:

- Click on the **Page Design** tab and select **Guides**.
- Select **Grid and Baseline Guides...** from the bottom of the pop-up menu.
- Click on the **Grid Guides** tab and set the following **Column Guides**:
  - **Columns: 2** (use the up arrow to increase number of columns)
  - **Spacing: 2.8cm**

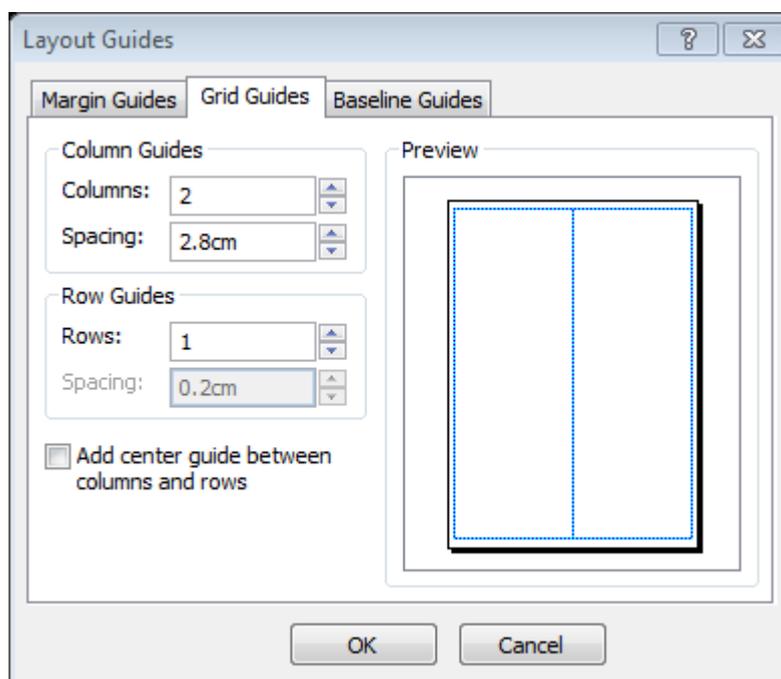


Figure 6: Set up columns and spacing.

- Click **OK**.  
You now have 2 columns of equal width, spaced 2.8cm apart.
- On the **Page Design** tab, make sure that the **Align To: Guides** and **Objects** options are ticked.



Although you can see the grids and guides on-screen, they will not print out on your final poster.

### 4.2 Save your poster

- Click on the **File** tab, and then click **Save As**.
- Navigate to your **H:** drive (to the location where you saved the exercise files).
- Name the file **workshop** and change the type to **Publisher Files (\*.pub)**
- Click **Save**.



Avoid losing hours of work - **save** your poster frequently!

## 5 Zoom in and out of your work area

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Working with such a large page size is challenging. To help you position and edit elements accurately, you will need to **Zoom** in and out frequently.



Work at **16** or **25%** when laying out the poster content.  
Zoom in to **33** or **50%** when adding detail, or to accurately line up content.

There are many ways to do this. Use the method that suits you best.

### The Zoom box

To change the zoom value, locate **Zoom** under the **View** tab on the ribbon. To view your poster at its actual size, change the percentage in the **Zoom box** to 100%.

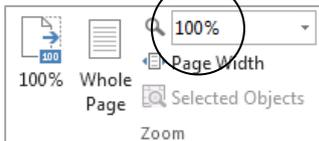


Figure 7: Zoom box at 100%.

### The Zoom Slider

As with other Office 2016 applications (e.g. Word) you can also use the Zoom Slider on the status bar at the bottom of the window.



Figure 8: The Zoom Slider.

### Mouse scroll button

If you prefer, you can zoom in and out by holding down the **Ctrl** key on your keyboard and using the scroll button in the centre of your mouse.

### F9 key

In Publisher, you can press the **F9** key to switch back and forward between your chosen zoom value and actual size.



Figure 9: The F9 key is very useful for zooming in Publisher.

## 6 Select a poster background

If you do not want a plain white background for your poster then Publisher offers many alternatives, from applying a simple change of colour (tint), to applying a gradient, patterned, or textured fill. It is also possible to apply a background image.

Bear in mind that the background should never detract from the poster content. Keep colours pale and soft, and if you do choose to use a textured or patterned background, keep these subtle to ensure poster text is still legible.



It is possible to change the background at any stage during the creation of your poster.

### 6.1 Applying a Background Colour

You will now apply a pale blue background colour, known as a 'tint' in Publisher.

- From the **Page Design** tab, click **Background** (Figure 11: Background.Figure 11).
- Click **More Backgrounds...**

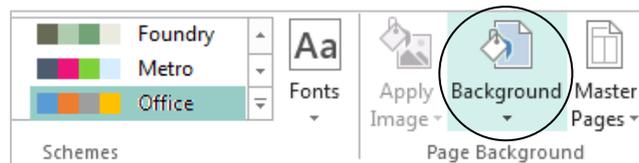


Figure 11: Background.

The **Format Background** dialog box will appear (Figure 10).

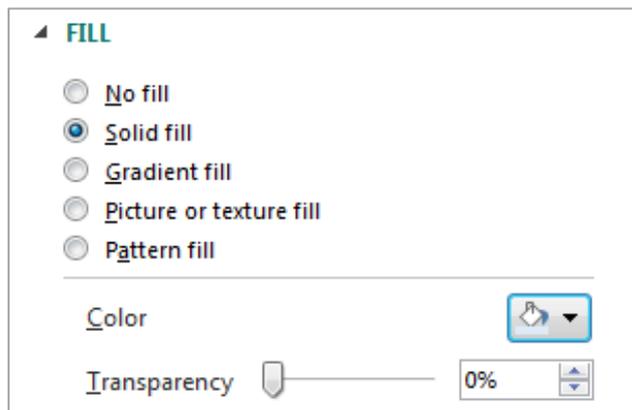


Figure 10: The Format Background dialog.

- Select **Solid fill**.
- From the **Color** drop-down box, select the light blue colour labelled **Accent 1 (RGB (91, 155, 213)) Lighter 80%**.
- Click **OK**.
- **Save** your poster presentation, leaving it open.



Quick save with the keyboard shortcut **Ctrl + S**.

## 7 Add a poster title

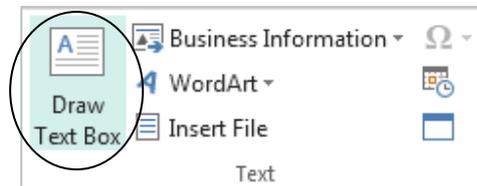
The poster title is your first communication with your audience. It should convey the essence of your poster. It should be clear and concise, aim for 15 words or less. It should be interesting and attention grabbing; studies show that your audience will decide whether to continue reading in as little as 3 seconds! It should be readable from 4.5 metres away; we recommend a minimum of 60pt in size.

### 7.1 Create a Text Box

You should create your poster title using a **Text Box**. This allows you to use subscript or superscript text in your title (e.g. H<sub>2</sub>O) or to individually italicise words (e.g. when using Latin names), if required.

- Zoom in to **25%**.
- Select the **Insert** tab on the ribbon, locate the **Text** group and click on **Draw Text Box** (Figure 12).

Figure 12: Draw Text Box icon.



- To create a Text Box, click and drag across the page, then release the left mouse button when you are happy with the size (Figure 13).

Don't worry too much about the position of this Text Box for now.

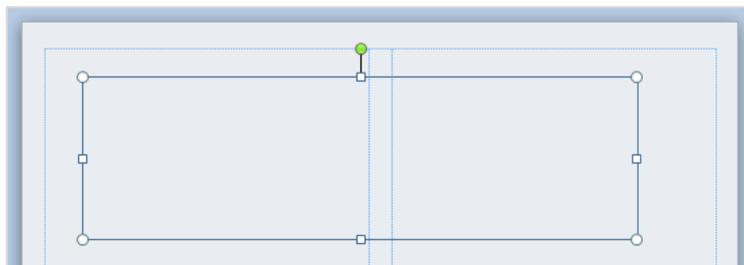


Figure 13: Insert Text Box.

You may notice that your Text Box appears to 'grow' in size slightly when you release the left mouse button. This is because Text Boxes in Publisher 2016 have two frames. Don't worry about this either, we will resize this Text Box later in the exercise.



By default, new Text Boxes are rectangular. You can change the shape of Text Boxes on future posters by selecting the Text Box, then clicking **Change Shape** from the **Drawing Tools Format** tab.

## 7.2 Insert text into your Text Box to create a poster title

- Click inside your new Text Box and press **F9** zoom in to **100%**.
- Type the following title text into the box, making sure you press the **Enter** key after the word 'using' so that the text appears on 2 lines as shown below:

### Active Appearance Models using DXA Imaging for the assessment of knee OA



If your poster title runs onto two or more lines, think carefully about where to insert line breaks. Remember you can press **Enter** to add a line break manually, as above.

#### 7.2.1 Format your poster title using Heading 1

- Select all the text within the Text Box by clicking and dragging with the mouse.
- Click on the **Home** tab and click **Styles**.
- Scroll to select **Heading 1**.
- Click on **Styles** again and right-click on **Heading 1**.
- Select **Modify** from the drop-down list.
- Click **Font...** and make the following changes:
  - **Size:** **96pt**
  - **Color:** **Accent 1 Darker 25%**

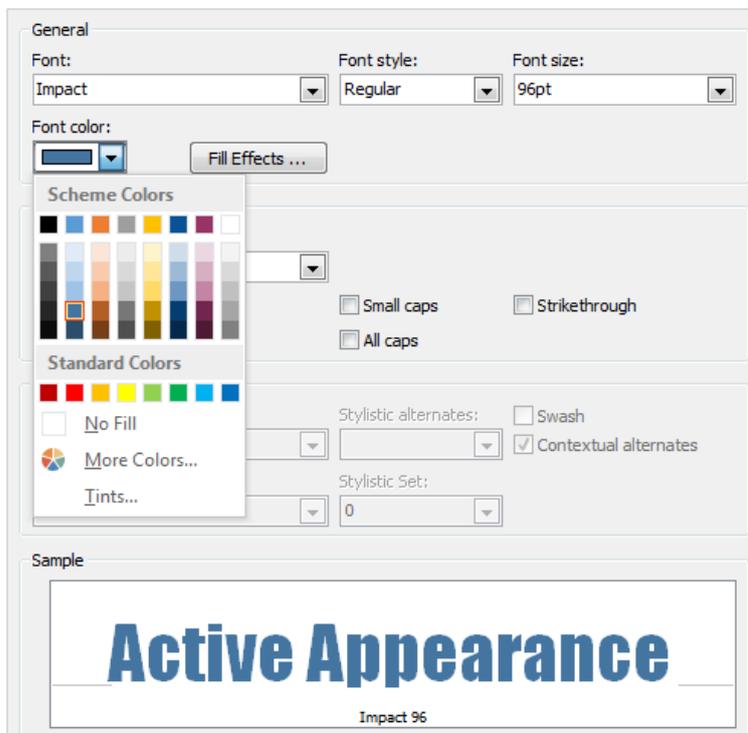


Figure 14: Font dialog.

- Click **OK**, then **OK** again.
- Press **F9** to zoom out to full-page view.

### 7.3 Move and resize the Text Box

Text Boxes have *handles* (Figure 15) that allow you to adjust their size and shape.



Figure 15: 'Handles'.

In Publisher, if a Text Box is too small to display its full text content, the handles will turn red and you will see an overflow icon containing three dots (Figure 16).

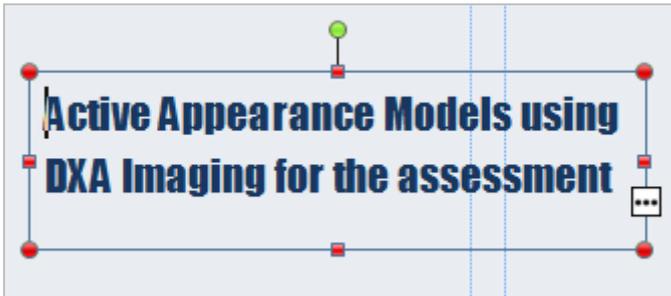


Figure 16: The Text Box overflow warning.

#### 7.3.1 Resize the Title Text Box

- With the Text Box still selected, grab the handle on the bottom right corner and drag it, resizing the Text Box until it is just wide enough for the title to appear on 2 lines.

The handles should turn white and the overflow icon should disappear.

#### 7.3.2 Position the Title Text Box

- To move the entire Text Box, first make sure it is still selected, then click on its border (the cursor will change to a cross) and drag (Figure 17).

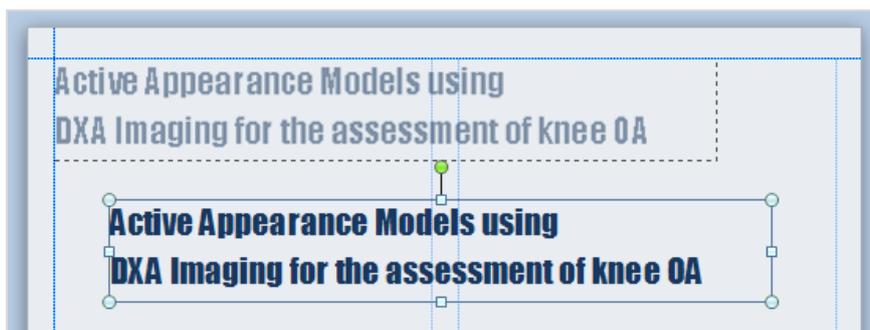


Figure 17: Moving the title Text Box.

- Drag the title Text Box until the top lines up with the top margin (Figure 18).

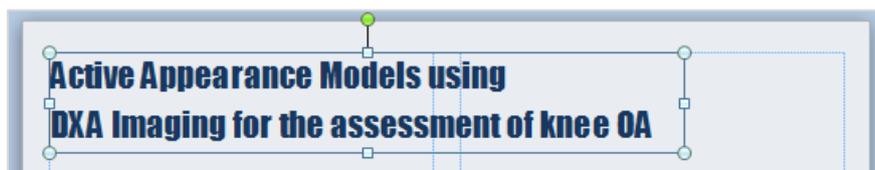


Figure 18: Title Text Box in position.



Once you have selected a Text Box, you can also use the **arrow keys** to move it up, down, left and right, one nudge at a time.

- **Save** your poster presentation, leaving it open.

## 8 Insert and format text from a Word document

You can type text directly into your poster using Text Boxes, as in the previous exercise, or you can paste it in from an existing Word document.



First, make sure to **de-select** your poster title Text Box by clicking on an empty area of your poster. If you don't, any new text you paste into your poster will go directly into the selected Text Box, overwriting your poster title!

### 8.1 Insert and format the authors' names

#### 8.1.1 Copy author text from Word

- Using **My Computer**, browse to your **H:** drive, and the location where you saved the workshop files.
- Open the Word file *poster\_text.docx*.
- Select the first paragraph containing the list of authors and associated institutions, then go to the **Home** tab and select **Copy** from the **Clipboard** group (or use the keyboard shortcut **Ctrl + C**).

#### 8.1.2 Paste author text into Publisher

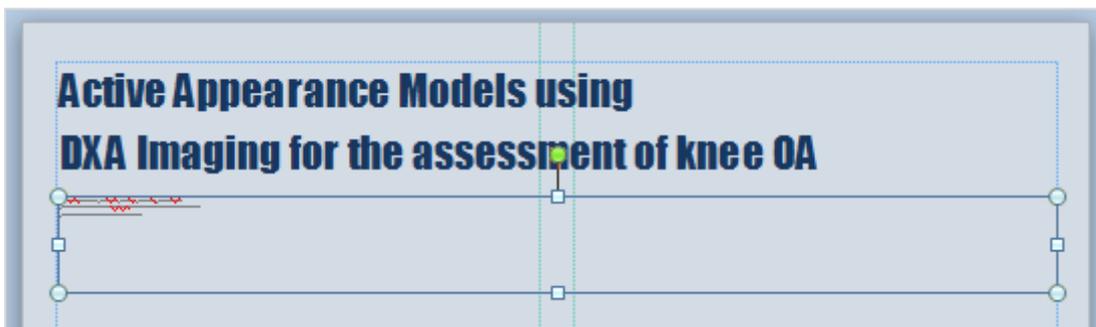
- Return to Publisher.
- From the **Clipboard** group on the **Home** tab, select **Paste Special** from the **Paste** drop-down menu.
- Select **New Text Box** from the list of options.
- Click **OK**.

The paragraph appears in a Text Box on the poster.

#### 8.1.3 Position the author Text Box

- Drag the Text Box and position it so that it sits a little below the title.
- Use the handles to widen the Text Box so that its left side lines up with the left margin and its right side with the right margin.

Figure 19: Positioning the author Text Box.



#### 8.1.4 Format the author text

- Click inside the author Text Box and press **F9** to zoom in to **100%**.  
You may need to scroll to the left to see the author text.
- Select the text within the Text Box by clicking and dragging with the mouse.
- Click on the **Home** tab.
- Click on the **arrow** in the bottom-right corner of the **Font** group (Figure 20).

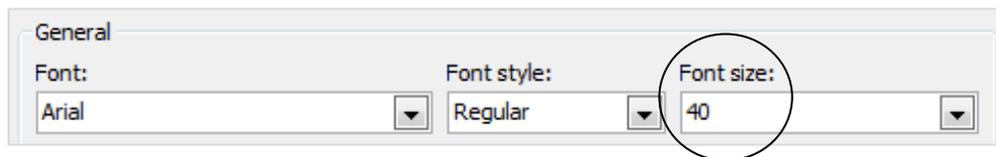


Figure 20: The Font group.

This will open the **Font** dialog box (Figure 21).

- Make the following change:
  - **Size: 40pt**

Figure 21: The Font dialog box.



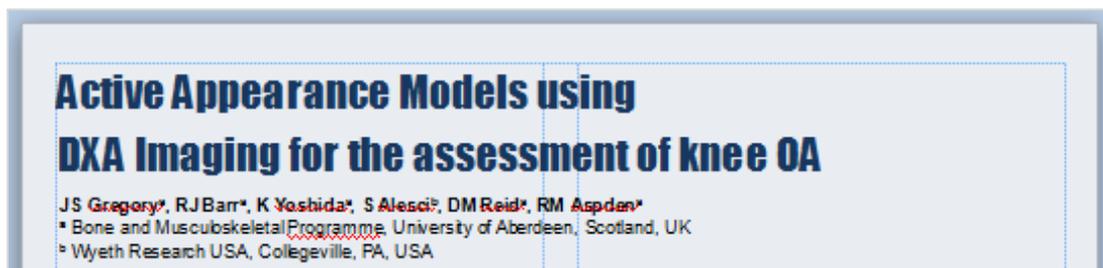
- Click **OK**.



You can use the **Font** dialog box at any time to apply subscript or superscript to individually selected letters or figures.

- Press **F9** to zoom out to full-page view.
- Select the first row (author names) and click on the **B** icon in the **Font** group on the **Home** tab to make them **Bold** (Figure 22).
- De-select the Text Box (click elsewhere on the poster).
- **Save** your poster presentation, leaving it open.

Figure 22: Author Text Box.



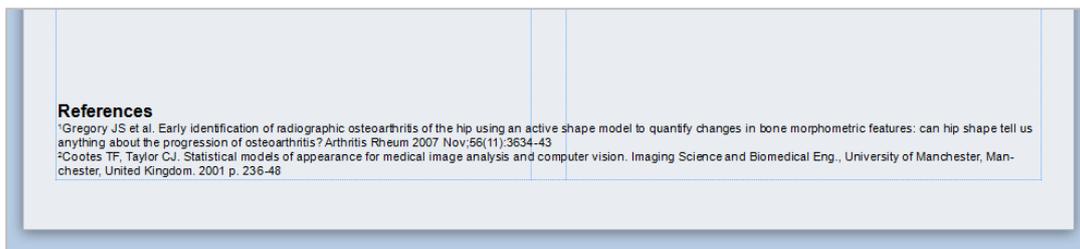
## 8.2 Insert and format the *References* text

Use the same method as described in 8.1 to **copy** and **paste** the **References** text from Word into a Text Box at the bottom of your poster.

### 8.2.1 Format the References text

- Select the *References* heading and make the following changes (the font should already be **Arial**):
  - **Style:**     **Bold**
  - **Size:**     **40pt**
- Select all the remaining text within the References Text Box and make the following changes:
  - **Size:**     **28pt**
- Drag this Text Box to the foot of the poster, lining it up with the bottom margin, and resizing it so that it spans the width of the poster from left to right margin – *refer to sample poster* (Figure 23).
- **Save** your poster presentation, without closing.

Figure 23: Positioning References Text Box.



### 8.2.2 Switch off hyphenation

- Click inside the *References* Text Box.
- Click on the **Text Box Tools Format** tab.
- In the **Text** group, select **Hyphenation**.
- Untick **Automatically hyphenate this story** and click **OK**.

### 8.3 Insert and format *Aim* and *Conclusions* text

By default, Text Boxes have no border or background colour. However, you can customise your Text Boxes to suit the design of your poster. For example, if your poster has a coloured background, filling your Text Boxes with white and adding a border will make them stand out and the text within them easier to read.

#### 8.3.1 Copy and Paste the *Aim* and *Conclusions* Text

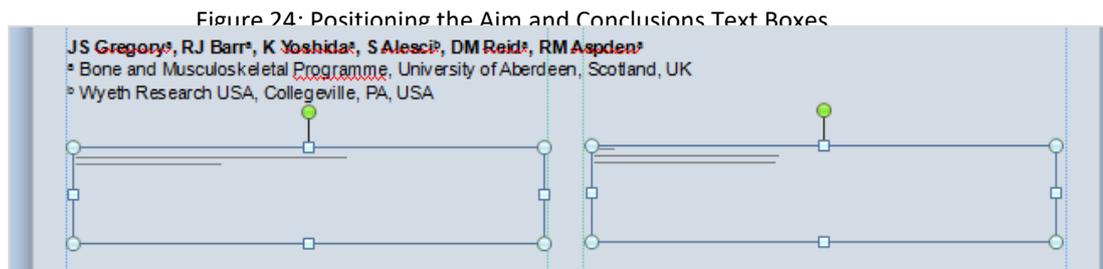
- Use the same method as described in 8.1 to **copy** and **paste** the **Aim** and **Conclusions** blocks of text from Word into **two** Text Boxes on your poster.



You will need to copy and paste each of these blocks of text separately, creating one Text Box at a time. Make sure you **deselect** each new Text Box before pasting the next block of text. If the second Text Box overlaps or pastes on top of the first, simply click and drag to move it.

#### 8.3.2 Position and resize the *Aim* and *Conclusions* Text Boxes

- Drag the *Aim* and *Conclusion* Text Boxes and position them so that they sit a little below the authors, in the left and right column respectively (Figure 24).



Don't worry about positioning them too neatly for now, you can adjust this later.

- Use the handles to widen the *Aim* Text Box so that its left side lines up with the left margin and its right side with the left centre margin.
- Use the handles to widen the *Conclusion* Text Box so that its left side lines up with the right centre margin and its right side with the right margin.

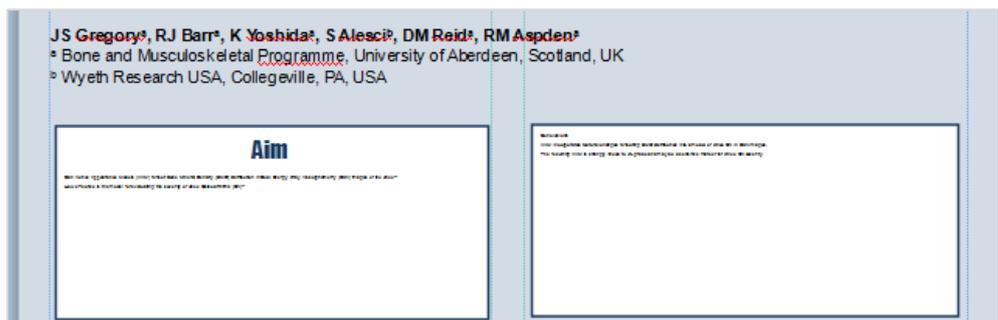
#### 8.3.3 Format the *Aim* and *Conclusions* Text Boxes

- Right-click on the *Aim* Text Box and select **Format Text Box**.
- In the **Format Text Box** dialog box, set the following options on the **Colors and Lines** tab (the labels e.g. *Accent 5* should appear as tooltips when you hover over individual colours):
  - **Fill Color** **Accent 5 (White)**
  - **Line Color** **Accent 1, Darker 25% (Dark Blue)**
  - **Line Width** **6pt**
- Still in the **Format Text Box** dialog box, click on the **Text Box** tab and set the following options:
  - **Text Box Margins:** **All 0.6cm**
  - **Text autofitting:** **Do not autofit**
- Click **OK**.
- Format the *Conclusions* Text Box in the same way.

### 8.3.4 Format the *Aim* and *Conclusions* heading text using Heading 2

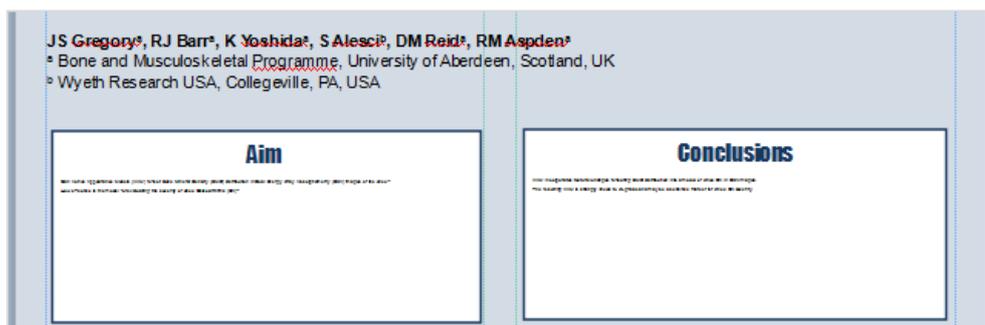
- Click inside the *Aim* Text Box and press **F9** to zoom in to **100%**.
- Select the Heading text 'Aim'.
- Click on the **Home** tab and click **Styles**.
- Scroll to select **Heading 2**.
- Click on **Styles** again and right-click on **Heading 2**.
- Select **Modify** from the drop-down list.
- Click **Font...** and make the following changes:
  - **Size: 55pt**
  - **Color: Accent 1 Darker 25%**
- Click **OK**.
- Click **Paragraph...** and make the following changes:
  - **Alignment: Center**
  - **Line Spacing After Paragraphs: 18pt**
- Click **OK**, and **OK** again.
- De-select *Aim* Heading text.

Figure 25: Formatting the Aim heading.



- Press **F9** to zoom out to full-page view.
- Click inside the *Conclusions* Text Box and press **F9** to zoom in to **100%**.
- Select the Heading text 'Conclusions'.
- Click on the **Home** tab and click **Styles**.
- Scroll to select **Heading 2**.
- Press **F9** to zoom out to full-page view.

Figure 26: Formatting the Conclusions heading.



### 8.3.5 Format the *Aim* and *Conclusions* text using List Bullet

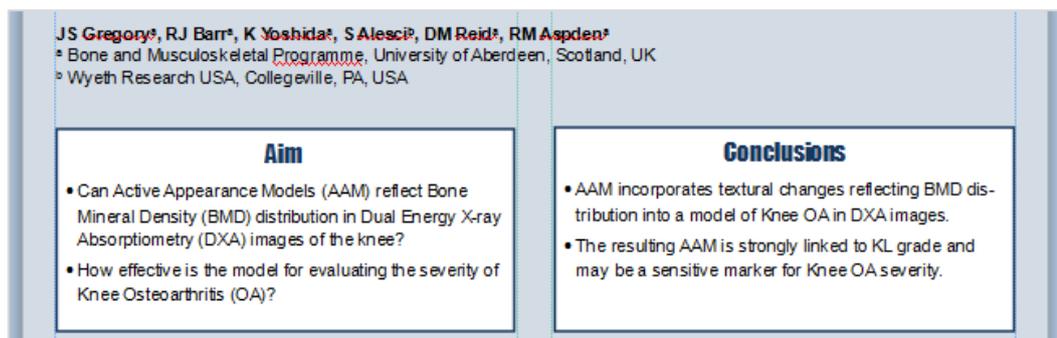
- Select the remaining text within the *Aim* Text Box (not the heading) and click **Styles**.
- Scroll to select **List Bullet**.
- Click on **Styles** again and right-click on **List Bullet**.
- Select **Modify** from the drop-down list.
- Click **Font...** and make the following changes:
  - **Font:** **Arial**
  - **Size:** **40pt**
  - **Color:** **Main (Black)**
- Click **OK**.
- Click **Paragraph...** and make the following changes:
  - **Line Spacing After Paragraphs:** **18pt**
  - **Between lines:** **1sp**
- Click **OK**.
- Click **Bullets and numbering...** and make the following changes:
  - **Bullet character:** **Round**
  - **Size:** **40pt**
  - **Indent list by:** **1cm**
- Click **OK**, then **OK** again.
- Select the remaining text within the *Conclusions* Text Box (not the heading) and click **Styles**.
- Scroll to select **List Bullet**.
- De-select remaining text.



Remember, if the *Aim* or *Conclusions* Text Box handles are now **red**, the Text Box is **too small** for the text content.

Click and drag the bottom centre handle downwards and make sure that the handles turn **white**.

Figure 27: Resize Aim and Conclusions Text Boxes.



Line up the Text Box baselines visually, or select each Text Box and click on the **Drawing Tools Format** tab. In the size group, make sure both Text Boxes have the same height value (approximately **14cm**). The width of both should be **38cm**.

## 9 Insert and format *Background, Methods, and Results* text using the Format Painter

### 9.1 Insert *Background, Methods* and *Results* text from Word

#### 9.1.1 Copy and Paste the *Background, Methods* and *Results* Text

- Use the same method, as described in 8.1, to **copy** and **paste** the **Background, Methods,** and **Results** blocks of text from Word and into **three** Text Boxes on your poster.

#### 9.1.2 Position the *Background, Methods* and *Results* Text Boxes

- Drag the *Background, Methods* and *Results* Text Boxes roughly into position under the *Aim* Text Box – refer to the sample poster.

Don't worry too much about positioning the Text Boxes too accurately at the moment, you will do that in a later exercise.

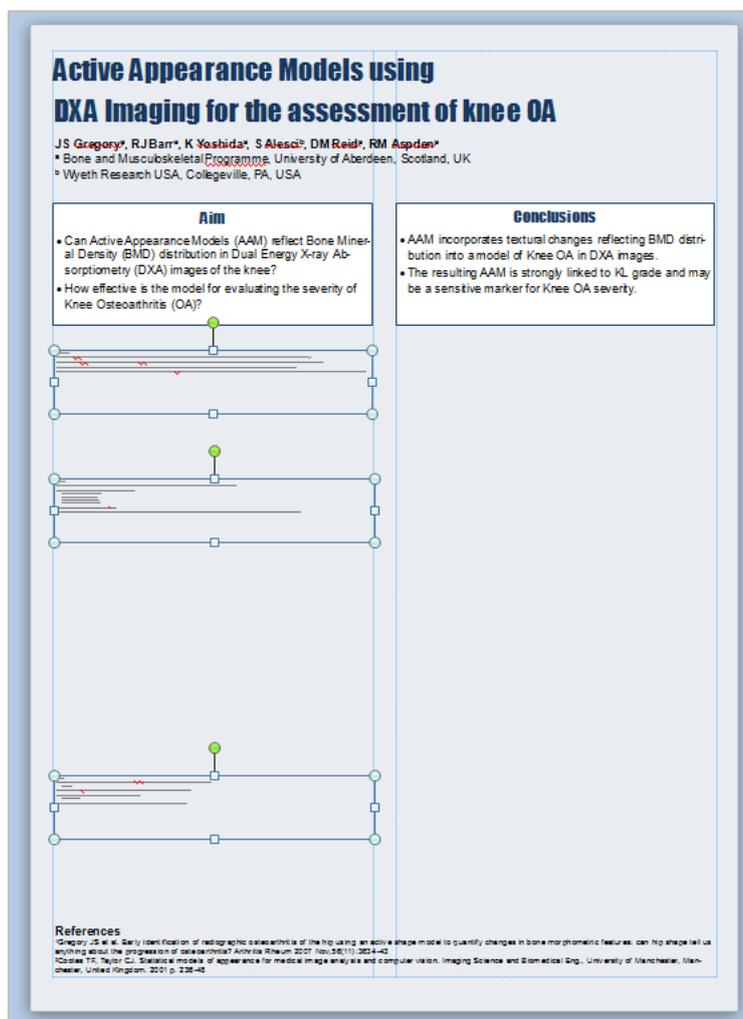


Figure 28: Placing Text Boxes.

- Use the handles to resize each Text Box to span the width from the left margin, to the left of centre guideline (Figure 28).



Again, the width of these Text Boxes should be **38cm** to match the column. You can double-check on the **Drawing Tools Format** tab as before.

## 9.2 Use the Format Painter to copy and apply formatting

### 9.2.1 Format the *Background*, *Methods* and *Results* Text Boxes using Format Painter

- Click on the *Aim* Text Box.
- From the **Home** tab, **Clipboard** group, click on the **Format Painter**.
- Hover your mouse cursor over the **Background** Text Box, you should see a paintbrush icon.
- Click once on the *Background* Text Box.  
The *Background* Text Box should change to have a white background, blue border and 0.6cm internal margins.
- Format the *Methods* and *Results* Text Box in the same way.



Don't worry if the *Background*, *Methods* and *Results* fonts have changed. We will fix this now.

### 9.2.2 Apply Heading 2 to the *Background*, *Methods* and *Results* headings

- Click inside the *Background* Text Box and press **F9** to zoom in to **100%**.
- Select the Heading text 'Background'.
- Click on the **Home** tab and click **Styles**.
- Scroll to select **Heading 2**.
- Press **F9** to zoom out to full-page view.
- Repeat to apply **Heading 2** to the *Methods* and *Results* headings.

### 9.2.3 Apply List Bullet 2 to the *Backgrounds*, *Methods* and *Results* text

- Click on the *Background* Text Box.
- If the handles are red, click and drag the bottom centre handle downwards to resize the Text Box until you can see all of the text content and the handles turn white.
- Select the remaining text within the *Background* Text Box (not the heading) and click **Styles**.
- Scroll to select **List Bullet 2**.
- Click on **Styles** again and right-click on **List Bullet 2**.
- Select **Modify** from the drop-down list.
- Click **Font...** and make the following changes:
  - **Font:** **Arial**
  - **Size:** **31pt**
  - **Color:** **Main (Black)**
- Click **OK**.
- Click **Paragraph...** and make the following changes:
  - **Line Spacing After Paragraphs:** **18pt**
  - **Between lines:** **1sp**
- Click **OK**.

- Click **Bullets and numbering...** and make the following changes:
  - **Bullet character:** **Round**
  - **Size:** **31pt**
  - **Indent list by:** **1cm**
- Click **OK**, then **OK** again.
- Select the remaining text within the *Methods* Text Box and click **Styles**.
- Scroll to select **List Bullet 2**.
- De-select remaining text.
- Repeat to apply **List Bullet 2** to the remaining text in the *Results* Text Box.



Click on each of the *Background*, *Methods* and *Results* Text Boxes individually. If the handles are now **red**, the Text Box is still **too small** for the text content. Click and drag the bottom centre handle downwards and make sure that the handles turn **white** again. The heights should be approximately **24.5cm** (*Background*), **22cm** (*Methods*), and **18.5cm** (*Results*).

### 9.3 Switch off hyphenation

- Click inside the *Aim* Text Box.
- Click on the **Text Box Tools Format** tab.
- In the **Text** group, select **Hyphenation**.
- Untick **Automatically hyphenate this story** and click **OK**.
- Repeat for the remaining Text Boxes (*Conclusions*, *Background*, *Methods*, and *Results*).

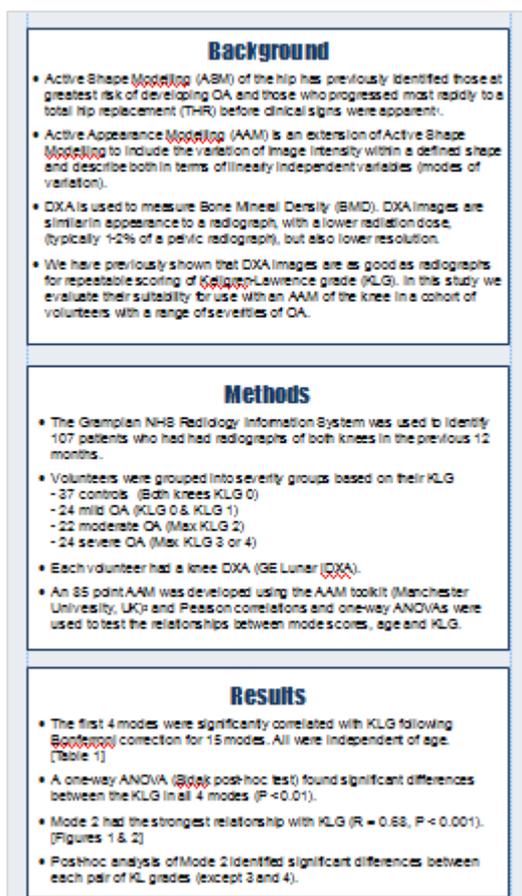


Figure 29: Text Boxes after formatting.

## 10 Create a rectangular box for image, chart and table

### 10.1 Insert a rectangular box

- Zoom out to **20%**.
- Go to the **Insert** tab, and select **Shapes** from the **Illustrations** group (Figure 30).

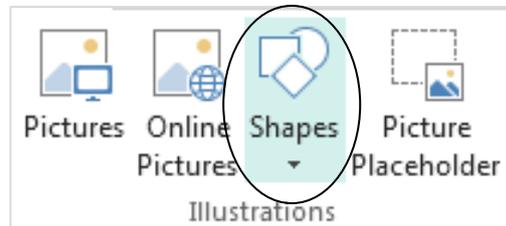


Figure 30: Insert Shape.

- Select **Rectangle**.
- The cursor will change to a simple cross +
- To draw a rectangle, click and drag downwards from the centre right margin, just below the **Conclusions** Text Box, to the right margin, roughly lining up with the bottom of the **Results** Text Box – refer to sample poster.
- Right-click on the rectangle and select **Format AutoShape...** from the pop-up menu.
- In the **Format AutoShape** dialog box, set the following options:
  - **Fill Color:** **Accent 5 (White)**
  - **Line Color:** **Accent 1, Darker 25%**
  - **Line Width:** **6pt**
- Click **OK** and **deselect** the box.



Remember, the width of the rectangle should be **38cm** to match the column. Double-check on the **Drawing Tools Format** tab.

### 10.2 Create a Heading in the rectangular box

- Select the **Insert** tab on the ribbon, locate the **Text** group and click on **Draw Text Box**.
- Place the cursor on the left edge of the rectangle and click and drag across to the right edge.
- Type **Results**. (Figure 31)
- Select the Results text and click on the **Home** tab.
- Click **Styles** and select **Heading 2**.
- Drag the **Results** Heading Text Box roughly into position at the top of the rectangular box – refer to the sample poster. (Figure 32)

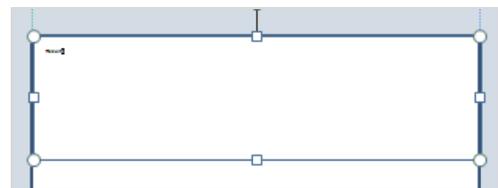


Figure 31: Type Results title.



Figure 32: Format and position Results Text Box.

- **Deselect** the Text Box and **Save** your poster presentation, without closing.

## 11 Insert and resize images and add a caption

For the best results, start with an image larger than required, and scale it down. If your image editing software allows you to set image resolution, anything between 200-300 dpi (or ppi) should be sufficient.

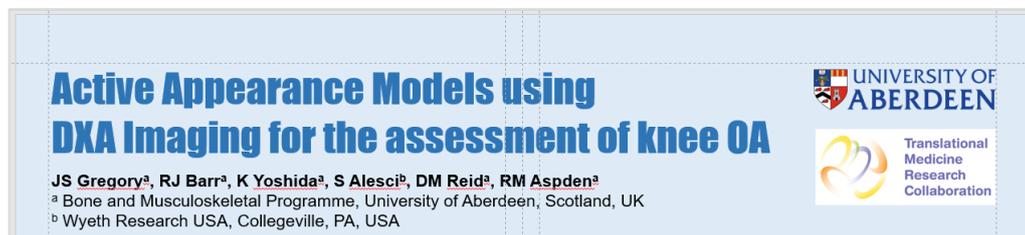


It is not advisable to use logos and images captured from web pages. Such images may look fine onscreen but are seldom of a high enough quality for print.

### 11.1 Insert the University and TMRC logos

- Go to the **Insert** tab, locate the **Illustrations** group and select **Pictures**.
- Browse to your **H:** drive, and the location where you saved the workshop files.
- Click on the image file *uni-logo-col.png* to select it, then click on **Insert**.
- Click and drag the University logo so that it sits in the top right-hand corner of your poster, lining it up with the top and right margins – *refer to sample poster*.
- De-select the University logo.
- Insert the **Translational Medicine Research Collaboration** logo *tmrc.tif* in the same way, positioning it immediately below the University logo (Figure 33).
- De-select the TMRC logo.

Figure 33: University and TMRC logos in position.



- **Save** your poster presentation, leaving it open.



We are using the University of Aberdeen logo here. You can obtain good quality, high-resolution copies of the University of Dundee logo, suitable for large format posters, from the University of Dundee's Creative Services department:

Web: <https://www.dundee.ac.uk/brand/toolkit/logo/>  
email: [print@dundee.ac.uk](mailto:print@dundee.ac.uk)

### Copyright



For general guidelines on copyright, see:

<https://www.dundee.ac.uk/governance/policies/copyright-webcopy/>

## 11.2 Insert and resize an image

- Repeat the previous procedure to insert the image *AAM-DXA.tif*.
- With the image still selected, select the **Format** tab on the ribbon, underneath **Picture Tools**.
- Click on the arrow in the bottom-right corner of the **Size** group to open the **Format Picture** dialog box (Figure 34).

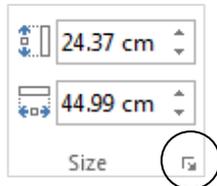


Figure 34: Size.

- On the **Size** tab, ensure the **Lock aspect ratio** checkbox is ticked and change the **Width** to **35cm**.
- Click **OK**.
- Position this image below the **Results** Heading at the top of the rectangular box (Figure 35).

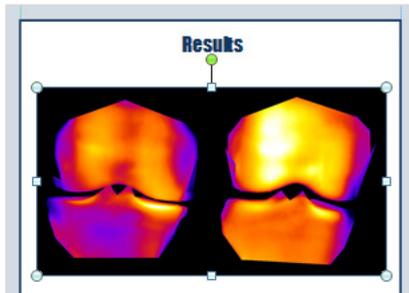


Figure 35: Position AAM-DXA.tif image.

- De-select the image.
- **Save** your poster presentation, leaving it open.



Try to avoid scaling up images in Publisher by more than 120% as this may distort them. Wherever possible, resize your poster images before inserting them into Publisher using image-editing software, e.g. Microsoft Photo Editor, Adobe Photoshop, or JASC Paint Shop Pro.

## 11.3 Insert an image caption

### 11.3.1 Copy a caption from Word

- Using **My Computer**, browse to your **H:** drive, and the location where you saved the workshop files.
- Open the Word file *fig\_captions.docx*.
- Select the first paragraph containing the caption for *Figure 1*, then go to the **Home** tab and select **Copy** from the **Clipboard** group (or use the keyboard shortcut **Ctrl + C**).

### 11.3.2 Paste a caption into Publisher

- Return to Publisher and from the **Home** tab select, **Paste Special** from the **Paste** drop-down menu.
- From the **Paste Special** dialog box, select **New Text Box** and then click **OK**.

The caption appears in a Text Box on the poster.

### 11.3.3 Format a caption

- Select all the text within the Text Box and make the **Font Size 28pt**.
- Select the caption Heading, '*Figure 1*', and make it **Bold**.
- Drag the Text Box and position it so that it sits below the *AAM-DXA.tif* image. Use the handles to reduce the width of the Text Box so that it lines up with the image – refer to *sample poster* (Figure 36).

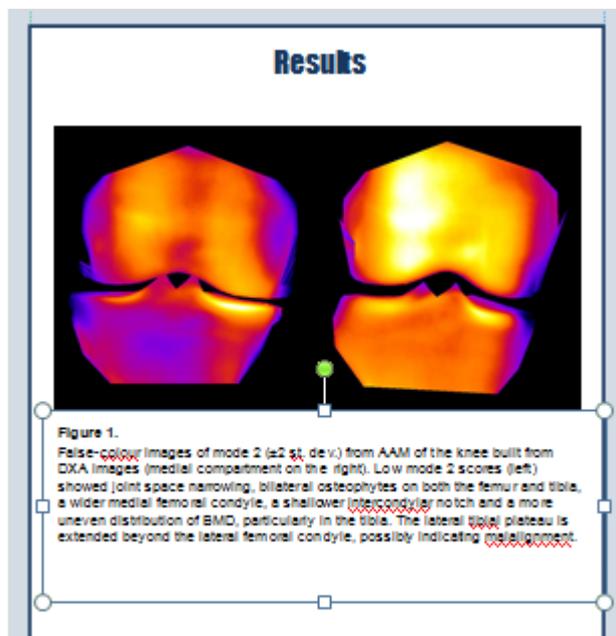


Figure 36: Resize and position caption.

- De-select the caption.



Remember, if the handles are now **red**, the Text Box is still **too small** for the text content. Click and drag the bottom centre handle downwards and make sure that the handles turn **white** again.

- **Save** your poster presentation, without closing.

## 12 Insert a chart from Excel and add a caption

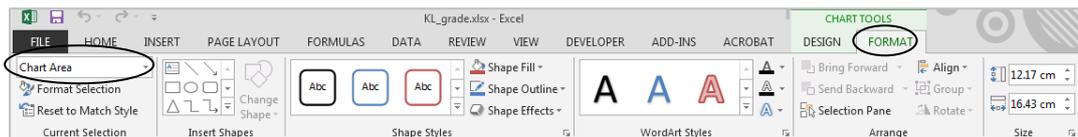
In most cases, by the time researchers are putting together a poster presentation, they will have already created graphs and charts to support their research findings using spreadsheet software such as *Excel*. You can copy and paste graphs and charts directly from Excel into Publisher.

### 12.1 Insert and resize a chart

#### 12.1.1 Copy a chart from Excel

- Using **My Computer**, browse to your **H:** drive, and the location where you saved the workshop files.
- Locate and open the Excel file *KL\_grade.xlsx*.
- Click once on the Chart in the centre of the Excel spreadsheet. The **Chart Tools** tab will appear on the ribbon (Figure 37).
- Click on the Chart Tools **Format** tab.
- Locate the **Current Selection** group. Select **Chart Area** from the chart elements drop-down menu. This will ensure the entire chart is selected before copying. (Figure 37)

Figure 37: The Chart Tools and Layout tabs appear on the Ribbon.



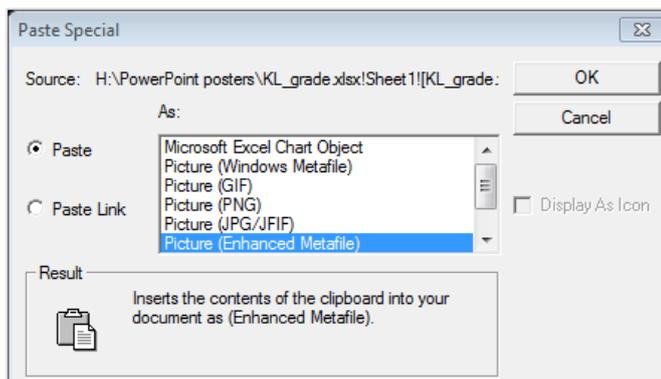
- Still in Excel, go to the **Home** tab and select **Copy** from the **Clipboard** group (or use the keyboard shortcut **Ctrl + C**).

#### 12.1.2 Paste a chart into Publisher

- Return to your Publisher poster.
- Click on the **Home** tab, locate the **Clipboard** group and select **Paste Special...** from the **Paste** drop-down menu.
- From the **Paste Special** dialog box, select **Picture (Enhanced Metafile)** and then click **OK** (Figure 38).



This imports the file as a graphic that will retain any formatting styles you applied in Excel and allow you to resize the chart without losing quality.



### 12.1.3 Format a chart in Publisher

- With the chart still selected, resize it in the same way you resized the image, changing its **Height** to **17cm**.
- With the chart still selected, position it so that it is centred below the **Figure 1** caption – *refer to poster sample*. (Figure 39)
- De-select the chart.
- **Save** your poster presentation, leaving it open.
- **Exit** Excel.

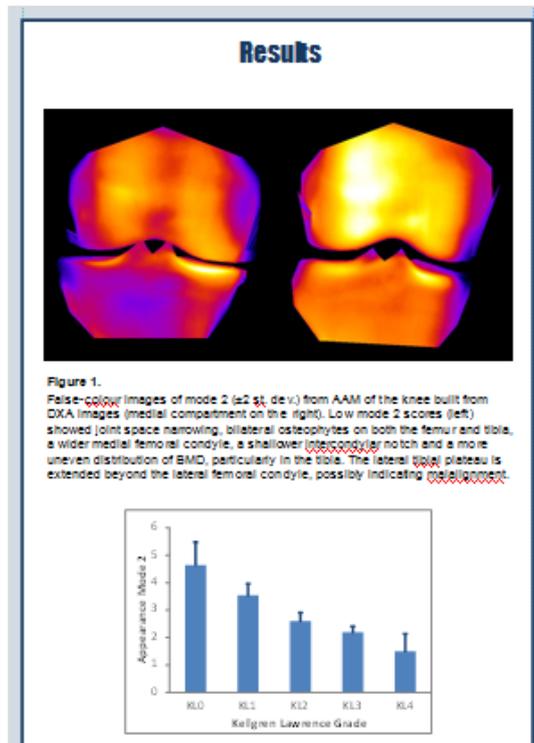


Figure 39: Resize and position chart image.

### 12.2 Insert a caption

- Return to the Word file *fig\_captions.docx*.
- Select the first paragraph containing the caption for *Figure 2*, then go to the **Home** tab and select **Copy** from the **Clipboard** group (or use the keyboard shortcut **Ctrl + C**).
- Return to Publisher and from the **Home** tab select, **Paste Special** from the **Paste** drop-down menu.
- From the **Paste Special** dialog box, select **New Text Box** and then click **OK**.

The caption appears in a Text Box on the poster.

- Select all the text within the Text Box and make the **Font Size 28pt**.
- Select the caption Heading, **Figure 2**, and make it **Bold**.
- Drag the Text Box and position it so that it sits below the chart. Use the handles to reduce the width of the Text Box so that it lines up with the chart – *refer to sample poster*.
- De-select the caption.
- **Save** your poster presentation, without closing.

## 13 Insert a table

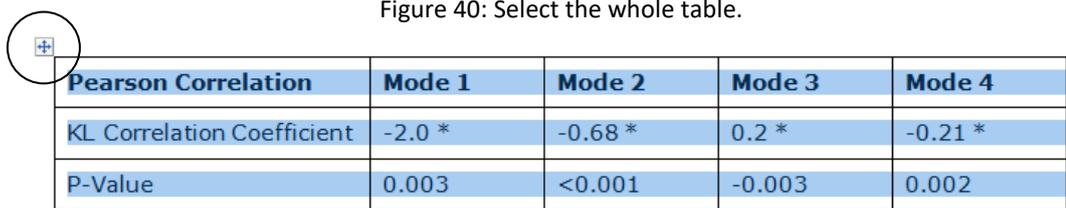
You can use *Word* to create tables and then copy and paste them into Publisher.

### 13.1 Insert and format a table

#### 13.1.1 Copy a table from Word

- Return to the Word document *fig\_captions.docx*
- Select the *Pearson Correlation* table and **copy** it to the clipboard (**Ctrl + C**). (Figure 40)

Figure 40: Select the whole table.



Pearson Correlation	Mode 1	Mode 2	Mode 3	Mode 4
KL Correlation Coefficient	-2.0 *	-0.68 *	0.2 *	-0.21 *
P-Value	0.003	<0.001	-0.003	0.002

#### 13.1.2 Paste a table into Publisher

- Return to Publisher, and right-click on a blank area of your poster
- Select the **Paste** clipboard icon from the pop-up menu.
- The table appears in your poster.

#### 13.1.3 Resize and format a table

- With the table still selected, position it below the *Figure 2* caption.



The table does not have handles, but you can resize by clicking and dragging the corners or edges.

- Click and drag the bottom right corner of the table. The cursor will change to a double-headed arrow.
- Holding down the **Shift** key, drag the handle downwards and to the right until the table is roughly the same width as the **Figure 1** image – refer to *sample poster*.
- **Select** all of the text in the table and change the **Font Size** to **24pt**.
- With the table still selected, click on the **Design** tab under the **Table Tools** option.
- Click on the **More** down arrow to display more table formats in the gallery.
- Select **Table Style 7**.

## 14 Insert a table caption and footnote using linked Text Boxes

---

Linked Text Boxes can be useful if you want to allow text to flow evenly between columns in Publisher. This is less relevant for our example today, as we have laid out our poster using text boxes with distinct headings. However, we have included an example of how to link Text Boxes using our caption and footnote below.

### 14.1 Insert a caption and footnote

- Return to the Word document *fig\_captions.docx* and **Copy** the *Table 1* caption and *\*Significant after bonferroni...* footnote at the same time (**Ctrl + C**).
- Return to Publisher and **Paste Special**, selecting **New Text Box** and then clicking **OK**.

#### 14.1.1 Split the caption and footnote Text Boxes

- Click on the Text Box and press **F9** to zoom in to **100%**.
- Right-click just before the asterisk for *\*Significant after bonferroni...*
- Select **Change Text**, then **Paragraph...**
- On the **Line and Paragraph Breaks** tab, tick **Start in next text box**.
- Click **OK**.

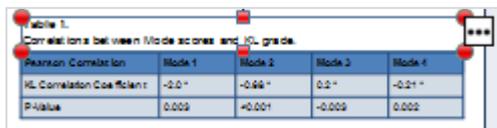
The footnote text *\*Significant after bonferroni...* will disappear and the handles will turn red.

#### 14.1.2 Format the caption

- Select all of the remaining text within the Text Box and make the **Font Size 28pt**.
- Select the caption Heading, **Table 1**, and make it **Bold**.
- Drag the caption Text Box and position it so that it sits *above* the table.
- Use the handles to reduce the width of the Text Box so that it lines up with the sides of table – *refer to sample poster*.
- Press **F9** to zoom out to full page view.

### 14.1.3 Create a linked footnote Text Box

- Click on the three overflow dots at the right of the Text Box (Figure 41).  
You will see a jug icon.



The screenshot shows a table with the following data:

Pearson Correlation	Mode 1	Mode 2	Mode 3	Mode 4
KL Correlation Coefficient	-0.0*	-0.00*	0.2*	-0.21*
P-value	0.000	>0.001	>0.000	0.000

Figure 41: Overflow dots.

- Click anywhere on the blue background of the poster (not inside another Text Box).



If you click inside another Text Box, your footnote caption will appear inside it and the two Text Boxes will be linked. If this happens, click **Undo**.

A new Text Box will appear containing the footnote text *\*Significant after bonferroni...*

### 14.1.4 Format the footnote

- Select all the text within the Text Box and make the **Font Size 24pt**.
- Drag the footnote Text Box and position it so that it sits *below* the table.
- Use the handles to reduce the width of the Text Box so that it lines up with the sides of the table – *refer to sample poster*.
- De-select the footnote.
- **Save** your poster presentation, without closing.

## 14.2 Switch off hyphenation

- Click inside the *Figure 1* Text Box.
- Click on the **Text Box Tools Format** tab.
- In the **Text** group, select **Hyphenation**.
- Untick **Automatically hyphenate this story**.
- Click **OK**.
- Repeat for the *Figure 2* Text Box.

## 15 Finishing touches

You can help your poster title stand out from the coloured background by inserting a white box behind it.

### 15.1 Insert white boxes

- Zoom out to **20%**.
- Go to the **Insert** tab, and select **Shapes** from the **Illustrations** group.
- Select **Rectangle**.
- The cursor will change to a simple cross +
- To draw a rectangle, click and drag downwards from the top left corner of the poster to the right of the page, roughly lining up with the bottom of the *Author Text Box* – refer to *sample poster*.
- On the **Drawing Tools Format** tab, select the following:
  - **Shape Fill:**           **Accent 5 White**
  - **Shape Outline:**   **No Outline**
- In the **Arrange** group, click on the **Send Backward** drop-down arrow and click **Send to Back** (Figure 42).

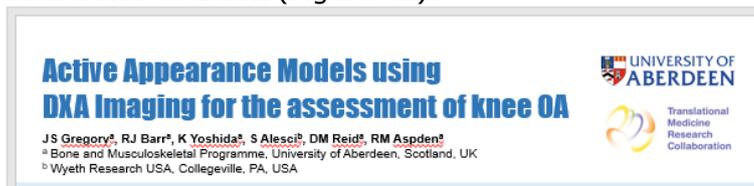
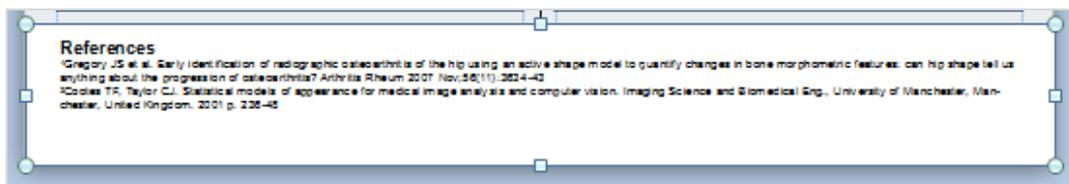


Figure 42:  
Formatted  
Rectangle,  
Send to Back.

- Use the same method to insert a white box behind the **References** text at the foot of the poster – refer to *sample poster* (Figure 43).

Figure 43: White box behind References text.



## 15.2 Check alignment of Text Boxes

Zoom out to **20%** and look carefully at the positioning of Text Boxes on your poster – *compare with the sample poster.*

- The **Aim, Background, Methods,** and **Results** Text Boxes should be equally spaced vertically over the left column.
- The top of the **Conclusions** Text Box should line up with the top of the **Aim** Text Box.
- The top of the **Results** images box should line up with the top of the **Background** Text Box.
- The bottom of the **Results** images box should line up with the bottom of the **Results** Text Box.



You may find it helpful to use Publisher's **Align** options.

Select the Text Boxes you wish to align, then click on the **Drawing Tools Format** tab.

In the **Arrange** group, you can click **Align** and select from options such as **Distribute Vertically, Align Top** and **Align Bottom**.

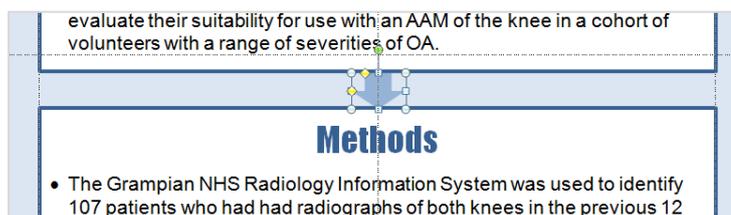
If necessary, re-position the boxes.

### 15.3 Insert directional arrows

Sometimes it can be helpful to add directional arrows to your poster design. These act as visual clues and help lead viewers through your content in sequence.

- Zoom in to **40%**, to the area between the **Background** and **Methods** Text Boxes.
- Go to the **Insert** tab, and select **Shapes** from the **Illustrations** group.
- Select **Down Arrow** from the **Block Arrows** group.
- The cursor will change to a simple cross +
- Click once on the blank area between the **Background** and **Methods** Text Boxes. A default arrow will appear.
- Right-click on the arrow and select **Format AutoShape...** from the pop-up menu.
- In the **Format AutoShape** dialog box, set the following options:
  - **Fill Color:** **Accent 1, Lighter 60%**
  - **Line Color:** **No Outline**
- Click on **OK**.
- With the arrow still selected, you can adjust the shape and size of your arrow by clicking and dragging its handles.
- Position the arrow between the two Text Boxes as shown (Figure 44).

Figure 44: Format and position the downward arrow.



- With the arrow still selected, click on the **Drawing Tools Format** tab.
- In the **Arrange** group, click on the **Send Backward** drop-down arrow and click **Send to Back**.
- Use the same method to insert an arrow between the **Methods** Text Box and the **Results** Text Box – or copy and paste the first arrow!
- Use the same method to insert an arrow between the **Aim** and **Conclusions** Text Boxes.

You will need to rotate this one! Ask a tutor for help if necessary.

- **Save** your poster presentation, without closing.

## 16 Prepare your poster for printing

Once you are happy with your poster design, and have checked all images, charts, labels, and read through the content carefully, you can prepare it for printing.

For the best results, you should save the Publisher file as a **high resolution PDF**.

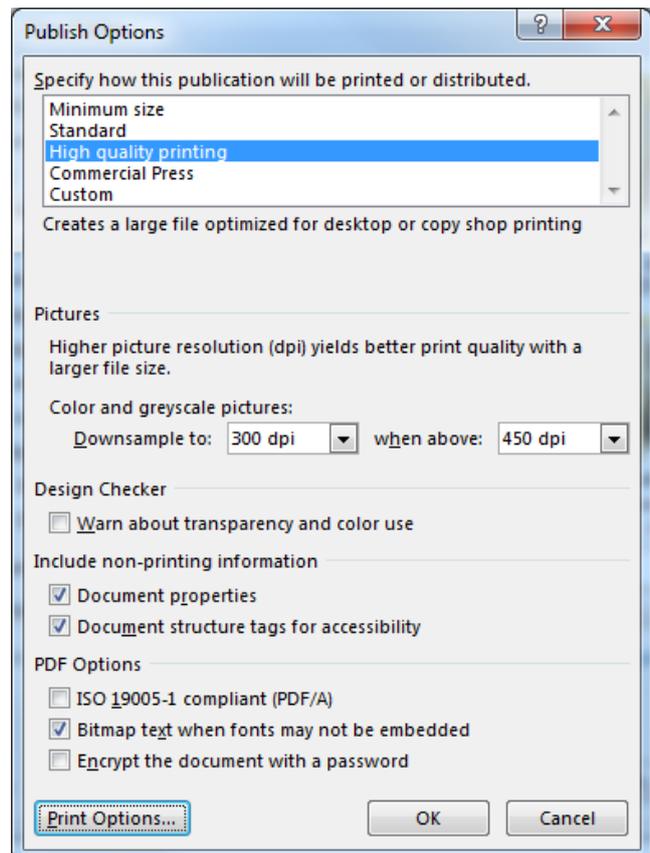
Follow the simple steps below to make sure there are no technical issues when you take your file to your printing service.

1. Click the **File** tab
2. Select **Export** from the menu on the left of the screen
3. Click the **Create PDF/XPS** icon:
4. In the Publish as PDF or XPS dialog, browse to the location you
  - Make sure **PDF (\*.pdf)** is selected next to **Save as type**
  - Accept the filename, or rename the file if you prefer
5. Click the **Options...** button



location you

6. In the **Publish Options** dialog, select **High quality printing** and make sure the other settings are as shown opposite:
7. Click **OK**
8. Click **Publish**



Send your newly created high resolution PDF to your print service.



Don't forget to ask your print service for an **A3 proof** before you go to the expense of printing and laminating your full-size A0 poster.

This gives you another opportunity to proof read your poster, and also allows your print service to check for any technical issues such as problems with image resolution.

# 17 End the workshop session

Your final poster should look something like this:

## Active Appearance Models using DXA Imaging for the assessment of knee OA

JS Gregory<sup>a</sup>, RJ Barr<sup>a</sup>, K Yoshida<sup>a</sup>, S Alesci<sup>b</sup>, DM Reid<sup>c</sup>, RM Aspden<sup>a</sup>  
<sup>a</sup> Bone and Musculoskeletal Programme, University of Aberdeen, Scotland, UK  
<sup>b</sup> Wyeth Research USA, Collegeville, PA, USA

UNIVERSITY OF  
ABERDEEN  
Translational  
Medicine  
Research  
Collaboration

### Aim

- Can Active Appearance Models (AAM) reflect Bone Mineral Density (BMD) distribution in Dual Energy X-ray Absorptiometry (DXA) images of the knee?
- How effective is the model for evaluating the severity of Knee Osteoarthritis (OA)?

### Background

- Active Shape Modelling (ASM) of the hip has previously identified those at greatest risk of developing OA and those who progressed most rapidly to a total hip replacement (THR) before clinical signs were apparent.
- Active Appearance Modelling (AAM) is an extension of Active Shape Modelling to include the variation of image intensity within a defined shape and describe both in terms of linearly independent variables (modes of variation).
- DXA is used to measure Bone Mineral Density (BMD). DXA images are similar in appearance to a radiograph, with a lower radiation dose, (typically 1/20 of a typical radiograph), but also lower resolution.
- We have previously shown that DXA images are as good as radiographs for repeatable scoring of Kellgren-Lawrence grade (KLG). In this study we evaluate their suitability for use with an AAM of the knee in a cohort of volunteers with a range of severities of OA.

### Conclusions

- AAM incorporates textural changes reflecting BMD distribution into a model of Knee OA in DXA images.
- The resulting AAM is strongly linked to KLG grade and may be a sensitive marker for Knee OA severity.

### Methods

- The Grampian NHS Radiology Information System was used to identify 107 patients who had had radiographs of both knees in the previous 12 months.
- Volunteers were grouped into severity groups based on their KLG
  - 37 controls (Both knees KLG 0)
  - 24 mild OA (KLG 0 & KLG 1)
  - 22 moderate OA (Max KLG 2)
  - 24 severe OA (Max KLG 3 or 4)
- Each volunteer had a knee DXA (GE Lunar DXA).
- An 85 point AAM was developed using the AAM toolkit (Manchester University, UK) and Pearson correlations and one-way ANOVAs were used to test the relationships between mode scores, age and KLG.

### Results

- The first 4 modes were significantly correlated with KLG following Bonferroni correction for 15 modes. All were independent of age. [Table 1]
- A one-way ANOVA (Sidak post-hoc test) found significant differences between the KLG in 28 of 15 modes ( $P < 0.01$ ).
- Mode 2 had the strongest relationship with KLG ( $R = 0.68$ ,  $P < 0.001$ ) [Figures 1 & 2]
- Post-hoc analysis of Mode 2 identified significant differences between each pair of KLG grades (except 3 and 4).

### Results

Figure 1. Four axial images of knee 2 (1, 2, 3, 4) from AAM of the knee built from DXA images (medial compartment on right side). Low mode 2 scores (left) showed joint space narrowing, bilateral osteophytes on both the femur and tibia, a wider medial femoral condyle, a shallower intercondylar notch and a more convex distal part of BMD, particularly in the tibia. The lateral tibial plateau is extended beyond the lateral femoral condyle, possibly indicating meniscal effusion.

Figure 2. Plot of the mean score (± SD, n=6) for Appearance mode 2 at each KLG grade.

Pearson Correlation	Mode 1	Mode 2	Mode 3	Mode 4
KL Correlation Coefficient	-0.20 *	-0.68 *	0.2 *	-0.31 *
P-Value	0.003	<0.001	<0.003	0.002

Table 1. Correlations between Mode scores and KLG grade.  
\* Significant after Bonferroni correction for the 15 modes compared ( $P < 0.003$ ).

#### References

Gregory JS et al. Early identification of radiographic osteoarthritis of the hip using an active shape model to quantify changes in bone morphometric features: can hip shape tell us anything about the progression of osteoarthritis? Arthritis Rheum 2007 Nov;50(11):2634-43  
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