**Chapter 2 Learning App: video outline**

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| Chapter: Pharmacological management of diabetes | Presenter: HCP with knowledge of insulin and experience administering/advising patients regarding insulin use |
| Lesson: Insulin is administered via subcutaneous injection | Video type: Expert commentary |
| Video title: Administering insulin and overcoming patient barriers to injectables | Video shot: faculty straight to camera, positioned right or left. Animations to appear over shoulder and/or as full screen overlay where appropriate. |
| Video objective: To provide practical guidance on initiating and administering insulin, including how to support people with correct injection technique | Video setting: Self-filming in clinic or office |
| Video length: Approx 5-6 minutes | |

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| **Topic 1: Addressing patients’ fear of insulin injections**  **Duration of topic: 1 minute** | | |  |
| **Talking points/script** | **Animation (if applicable)** | **Timings** | **References** |
| * Many people with diabetes will be treated with insulin at some point in their disease course. * Everyone diagnosed with type 1 diabetes will need **multiple daily insulin injections** for the rest of their life, and many people with type 2 diabetes need insulin therapy to **manage their blood glucose levels as the disease progresses**. * However, the thought of **injections**, particularly self-administering, **can be daunting and even distressing** for people. * Most individuals starting insulin therapy will **need support and reassurance** from healthcare providers to understand that needing insulin is not a sign that their diabetes is “out of control” or unmanageable. * People with diabetes should be educated about diabetes as a progressive disease, which often requires **insulin as a highly effective treatment** for keeping blood glucose levels in their target range. * Many people also believe that the injections will be very painful to administer, which is not the case with **newer needle sizes** and **correct injection technique**. It is important to educate people with diabetes on these topics before starting insulin therapy to alleviate some of their concerns and allow the best chance of treatment adherence. | The video will be a combination of full screen talking head and over the shoulder talking head with on screen animations.  Keywording: text screens depicting keywords highlighted in blue on the left | TBC in post-production |  |
| **Topic 2: What to consider when prescribing insulin**  **Duration of topic: 2 minutes** | | |  |
| **Talking points/script** | **Animation (if applicable)** | **Timings** |  |
| * There are multiple different types of insulin which have been discussed earlier in this chapter. **Most people with type 2 diabetes will start on NPH insulin**. * There are now several devices available for injecting insulin. Traditionally, the only method of injecting insulin was using a syringe to pull insulin from a vial, which was then injected into the body. * **Insulin syringes** are still used by some people with diabetes globally, **but insulin “pens”**, which are so called because they resemble pens used for writing, are also available in many countries around the world. * Some pens are for single use, whereas others are reusable – in this case, the patient replaces the vial with a fresh one after it is finished. * Some people with type 1 diabetes use **insulin pumps**, which continuously deliver small doses of insulin. * When selecting and prescribing needles for people with diabetes, there are a key points to consider:   + Firstly, the **shortest available needles** are preferred for all patients. This is 4 mm for pen injectors and 6 mm for insulin syringes.   + It’s also important to remember that with each use, needles become less sharp. Where possible, advise patients to use a **new needle for each injection** to reduce risk of infection and pain on injection.   + Reuse of needles and syringes is not recommended but may be necessary in some circumstances. People with diabetes should be advised to **discard needles when injections become more painful or after a maximum of 5 uses**.   + Finally, all insulin-treated individuals should have a **safe way of disposing of used needles**. Needles that are not disposed of safely pose a risk of injury and/or infection to the patient, other members of the household and waste disposal workers. | * Overlay image of insulin pen injector and vial e.g.: |  |  |
| **Topic 3: Injection technique**  **Duration of topic: 2 minutes** | | |  |
| * It is important to ensure that patients are comfortable and confident administering insulin, as this will help to prevent pain from injections and to minimize risk of hypoglycaemia. * Regardless of mode of administration, **insulin should be injected subcutaneously**; that is, into the layer of fat just below the skin. * Intramuscular injection should be avoided as this may result in more rapid insulin absorption and serious hypoglycaemia. This means **avoiding injecting into sites with very little fat coverage** and **avoiding using needles that are too long**. * Modern-day needles for insulin injections are both short and thin, so shouldn’t cause significant pain when using the correct technique. * Insulin should be **injected at a 90o angle**, where the pen or syringe is perpendicular to the body. * The main injection sites are the **stomach, thighs, buttocks and arms**. Patients will probably develop a preferred site of injection; however, using the same site for injection too frequently can cause bumps and scar tissue – known as **lipohypertrophy** – to form. **This causes pain and discomfort and reduces the body’s ability to absorb insulin** from that site which can lead to high blood glucose. * To avoid lipohypertrophy, **injection sites should be regularly rotated**, including rotating sites within a given area of the body, such as the stomach or thighs. A demonstration of how to rotate injection sites is shown in this animation. | * Show cartoon of ‘skin pinch’ and animation of injection into sc tissue, avoiding muscle        * Overlay animated figure of suitable injection sites.      * Overlay animated figure of rotating injection sites |  |  |
| **Topic 4: Summary**  **Duration of topic: 30 seconds** | | |  |
| * To summarize, remember that **starting insulin therapy is a significant event in the lives of people living with diabetes**. Education should be compassionate and **recognise the fear and stigma** that many people associated with injections. * Modern-day treatment options are not associated with significant pain, but patients should be educated on **correct injection technique**, and have a means of **safely disposing of needles** to reduce the risks associated with injections. * Educating patients who use insulin on how to recognize hyper- and hypoglycaemia is also important, and will be covered later in this chapter. |  |  |  |