

A LEARNING POINTS' EVOLUTION

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INTRODUCTION

In the current digital era, the ability to augment medical education through technology remains vast. Visual data is perceived and processed more efficiently than written information. Infographics can simplify complex scientific concepts.

Our aim was to assess the benefit of using visual aids and infographics in our departmental newsletter.

METHODS

The educational newsletter was restructured from a simple word document to a colourful high-quality PDF, incorporating visual aids and infographics. Weekly newsletters were sent out to clinicians over a 12 week period. Through a simple survey, anonymised qualitative feedback regarding the new appearance was then collated from 23 non-randomised volunteers

RESULTS

All respondents reported engagement with the newsletter. 96% noted the change in layout, with 87% rating it as "better" or "much better". 82% described the infographics as important in encouraging their engagement with educational content. Qualitative feedback has reinforced that changing to a visually enhanced newsletter has encouraged high levels of engagement with the educational material.

THE OLD NEWSLETTER DESIGN

Dear ARU team,
Learning points for this week below.
Let us know if there's anything you'd like us to include next week.
Best wishes,
David, Jenny, Maggie, Mark, Ryan

ARU LEARNING POINTS
Week beginning: 22/06/20

Teaching Grand Round:
Thanks to Dr Lewis- Ophthalmology
Idiopathic Intracranial Hypertension
What is it? Raised intracranial hypertension without a space occupying lesion or hydrocephalus and with a normal CSF composition
Why is it important? If left untreated- this condition sight threatening
What causes it? Pathogenesis not fully understood
Little assoc with obesity in young children. Can be secondary to iron deficiency anaemia
Presentation:
Symptoms are that of raised ICP- headaches worse on valsalva manoeuvres, greyouts in vision, pulsatile tinnitus, horizontal diplopia- assoc with 6th cp palsy.
Examination should include:
• Visual acuity
• Pupils
• Colour vision
• Fields
• Optic nerve examination
Management options:
Conservative: weight loss in obesity- Healthy start programme
Medical: Acetazolamide, Topiramate, rule out secondary causes
Surgical: shunting, optic nerve sheath fenestration
Take home messages:
• IIH is sight threatening
• Always rule out secondary causes

Clinical
Do you feel equipped to talk to young people about drugs?
We are seeing more young people experimenting with recreational drug use

According to the Schools Adolescent Lifestyle and Substance Use Survey 2018:
6% of 13 year olds and 21% of 15 year olds had ever used drugs. It was most common for pupils to have used drugs out in the street or in someone else's home.
Cannabis was the most widely used drug; 19% of 15 year olds had ever used cannabis
6% of 15 year olds had ever taken ecstasy, 5% had ever taken cocaine, 5% had ever taken any form of Novel Psychoactive Substances (NPS) and 5% had ever taken MDMA powder.
31% of 13 year olds and 42% of 15 year olds who had ever used drugs had been drinking alcohol the last time they had used drugs
Below are some useful sources of info for youth, carers and health care professionals:

During the COVID pandemic, disruption of conventional teaching has necessitated expansion into alternative education. Weekly newsletters have been an invaluable educational tool, allowing dissemination of learning to a wide multidisciplinary audience. Educational engagement has been enhanced through evolution to a high-quality graphic layout.

THE NEW NEWSLETTER DESIGN

16TH OF SEPTEMBER 2020
ARU LEARNING POINTS
Brought to you by Ayia, Jenny H, Jenny J and Laura

Pre-septal/orbital cellulitis
By Laura Dunn
PRESEPTAL CELLULITIS IS AN INFECTION OF THE EYELID AND SURROUNDING SKIN ANTERIOR TO THE ORBITAL SEPTUM
ORBITAL CELLULITIS IS WHEN THE INFECTION HAS SPREAD TO THE ORBIT WHICH CAN LEAD TO BLINDNESS, CNS INFECTION AND EVEN DEATH!

Why are children at higher risk?
IN CHILDREN THE ORBITAL SEPTUM IS NOT FULLY DEVELOPED AND THEREFORE THE RISK OF INFECTION PROGRESSION IS HIGHER
80% OF CASES OF ALL PRESEPTAL CELLULITIS ARE IN CHILDREN UNDER 10 YEARS OLD, WITH MOST OF THESE CASES OCCURRING IN UNDER FIVES.
MALE:FEMALE PREDOMINANCE IS 2:1

CAUSES:
SINUSITIS
INFECTION OF NEARBY STRUCTURES
TRAUMA
IATROGENIC E.G. FOLLOWING EYE SURGERY
MOST COMMON PATHOGENS:
STAPH AUREUS
STREP PNEUMONIA
STREP PYOGENES
HEMOPHILUS INFLUENZAE

What features distinguish pre-septal from orbital cellulitis?
Orbital Preseptal
Proptosis Present Absent
Ocular motility Painful and restricted Normal
VA Reduced in severe cases Normal
Colour vision Reduced in severe cases Normal
RAPD Reduced in severe cases Normal

Relative Afferent Pupillary Defect (Left sided defect):
Start with a DARK ROOM
Shining torch in RIGHT eye Bilateral pupillary constriction

Visual milestones:
6 WEEKS: FIXES AND FOLLOWS LIGHT SOURCE, SMILES RESPONSIVELY
3 MONTHS: CAN FIX AND FOLLOW SLOW MOVING TARGET AND CONVERGE
6 MONTHS: CAN REACH ACCURATELY FOR TOYS
2 YEARS: PICTURE MATCHING
3 YEARS: LETTER MATCHING OF SINGLE LETTERS
5 YEARS: CAN DO SHELLEN CHART BY NAMING OR MATCHING LETTERS

Investigations in orbital cellulitis:
BLOODS, CRP AND FBC
BLOOD CULTURES
POS CULTURE IF ANY COLLECTION AMENABLE TO ASPIRATION IS PRESENT
CT IF CLINICAL CONCERN OF POSTERIOR COLLECTION/OPTIC NERVE COMPROMISE

Management:
IV ANTIBIOTICS IN LINE WITH LOCAL POLICY AND SENSITIVITIES
SOMETIMES SURGICAL INVOLVEMENT IS REQUIRED, ALWAYS GET ENT AND OPHTHALMOLOGY REVIEW OF THESE PATIENTS TO CHECK IF THIS IS THE CASE!

Quote of the Week
If you don't like something, change it. If you can't change it, change your attitude.
- Maya Angelou

In a Nutshell!
TYPE 1 DIABETES MELLITUS
PANCREATIC BETA CELL DEFICIENCY LEADS TO ABSOLUTE INSULIN DEFICIENCY
MOST COMMON IN CHILDREN AND YOUNG ADULTS
TYPICALLY AN AUTOIMMUNE PROCESS BUT CAN BE IDIOPATHIC

References:

1. Dur BI. Data visualization and infographics in visual communication design education at the age of information. Journal of Arts and Humanities. 2014 Jun 1;3(5):39-50.. [Accessed 27.11.20]