ANTIBIOTIC RESISTANCE

Resume of Talk Given by Professor Peter Taylor at our Public Meeting in March

Our last Public Meeting in March was a power point presentation by Professor Peter Taylor of University College London and nearly 90 of us came to hear what he had to say about antibiotic resistance. He had so much to explain in a relatively short time and I have tried to highlight the important points.

He started by commenting on the fact that homo sapiens (origin Latin, literally 'wise man') have been around for some 200,000 years, whereas antibiotics have existed for less than 70 years – a fact which no doubt will surprise most of us as we have known of them for most if not all of our lives.

What are antibiotics? They are substances produced by one microorganism that kill or inhibit the growth of other microorganisms – usually a bacterium. Most are produced by bacteria (streptomycetes) or fungi which live in the soil and are, therefore, natural products. The first widely used antibiotic was penicillin and was discovered by Alexander Fleming in 1928 but it was not introduced for clinical use until towards the end of the 2nd World War.

Professor Taylor went on to explain the huge impact of antibiotics on the health of nations:

Bacterial infections became treatable

- Commercial production of penicillin G launched a 'golden age' of antibiotic discovery
- Together with public health sanitation measures and immunisation, antibiotics have had a significant impact on life expectancy
- They enabled infection control: organ transplants, care of pre-term babies, cancer chemotherapy, safe surgery, safe obstetric care, intensive care interventions

calling them 'miracle drugs' – many fantastic antibiotics (54 between the late 70s and the early 80s) were discovered in a very short time, making a huge impact on life expectancy - and showing some pictures taken in the early 1940s of a very sick little girl (at death's door) and the difference between the fourth day on antibiotics, the ninth and then fully recovered by the tenth day. Prior to this, pre-term babies were very much at risk and cancer therapy could not be controlled.

Major pharmaceutical companies (of whom there were 30 and now there are 6) lost interest in developing new antibiotics as it is not a profitable exercise – they are used for a very short period of time and cost in the region of \$1,000 million to introduce and the company would not get its money back for some 7/8 years, if ever.

The **use**, **overuse** and **abuse** of antibiotics has led to the emergence of antibiotic drug resistance – and society has failed to protect this precious resource as these drugs were taken for granted for many years. This emergence is due to 'Darwinian' natural selection; variation within species occurs randomly and the survival or extinction of each organism is determined by that organism's ability to adapt to its environment – the fittest survive and the weakest perish. MRSA infection was a problem 10 years ago as strains isolated from the blood of infected patients were around 45% resistant to penicillins and cephalosporins (the B-lactam antibiotics). However, much more attention to hand washing and beds being further apart has led to this now being 20%. The widespread use of antibiotics in animal husbandry and agriculture with the spraying of crops has increased the incidence of drug resistance. Clostridium difficile (CDiff) tends to occur in the elderly following antibiotic therapy if the good bacteria have been 'wiped out'.

The balance between bacteria and the host is important and it is vital to restore the balance as an infection is when the balance is upset. Currently the probiotic yogurts do little, although research is hoping to correct this, but a **very varied diet helps to restore the gut**.

What can doctors, pharmacists and patients do to slow down the emergence of antibiotic resistance?

- Prescribe fewer antibiotics; patients should not expect antibiotic prescriptions for minor viral infections (GP antibiotic prescribing has fallen significantly in recent years – GPs are 'the boss', let them decide!
- Make sure dosing and duration of therapy are appropriate – must finish the course of treatment!! (suboptimal dosing drives resistance)



- Prescribers must make sure infection is bacterial antibiotics!
- Prescribe generic antibiotics when available and appropriate instead of brand-name agents (reduce health-care costs; preserve efficacy of new agents)
- Avoid broad-spectrum antibiotics if possible as these attack everything – they are going to seek out the 'good guys' in your body
- If possible, use older antibiotics as first-line treatment

Follow national guidelines for appropriate antibiotic usage

What can parents do to help?

Let children play in the mud *and* let them eat dirt!

Professor Taylor concluded by:

- advising drinking 6 cups of green tea a day; extracts of green tea contain a complex mixture of bioactive molecules – health benefits are: improving blood flow, may lower cholesterol, antioxidant effect prevents cell damage, promotes weight loss by increasing metabolic rate and, although it has weak antibacterial properties, it protects against dental caries
- strongly advising cooking food from scratch
- suggesting avoiding emulsifiers and processed food

A world without antibiotics?

"Antibiotics were one of the most significant discoveries of the 20th century. Killer diseases such as tuberculosis, meningitis, scarlet fever and pneumonia could suddenly be treated and cured. **Unless we act to protect these medical miracles, we could be heading for a postantibiotic age in which many medical and surgical advances could be undermined by the risk of incurable infection.**"

Gro Harlem Brundtland, former WHO Director General

We are very fortunate to have such an expert as Peter Taylor living 'on our doorstep' as he has spoken all over the world to such illustrious bodies as NASA, and we are very grateful to him for giving up an evening to share his knowledge, findings and his enthusiasm and optimism for discovery with us.

NEWSLETTER NUMBER 36

MAY '17



Pulborough Patient Link



pulborough patient link - your voice in local health

NEPTS Non-emergency Patient Transport Service In Sussex

Transport is provided for patients who have a medical reason which means they are not able to travel by another method, for such journeys as a planned outpatient appointment, to hospital for a planned admission or home following discharge or back to Sussex from hospitals in other areas of the country.

Once accepted into the system an appointment can be booked online through the NEPTS Patient Zone or by calling 0300 123 9841.

Journey operating times:

Monday—Saturday	07.00-22.00
Sundays and Bank Holidays	08.00—22.00
Renal Patients (every day)	06.00—23.00

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MESSAGE FROM OUR CHAIR

Thank you for the positive feedback we have had regarding the new look newsletter. Thank you also to those who have passed questions on to me regarding aspects of the work PMG carry out. These will be discussed at the next PPL meeting.

Over several years the PPL have held many informative talks on a range of subjects — if you would like information on a particular subject please do not hesitate to get in touch with a member of the committee or myself on

alyson.heath55@gmail.com

In the newsletter we will try to keep you up-to-date with key issues affecting our local area, but once again if you would like to read an article on a particular subject please contact us.

Over the coming months we are hoping to reorganise the notice boards in the entrance to the PMG Practice and to divide up the display boards to ensure that the valuable information there is easily accessible.

In the next few weeks I will be meeting with Chairs of local PPL groups to see how we can work more closely together and share good practice.

In recent months we have received an increased number of donations from members. These are gratefully received and help support the work we carry out as the Pulborough Patient Link, thank you.

We look forward to seeing you all at our next public meeting on July 24th

Alyson Heath

Whilst care is taken to ensure the accuracy of any of the articles or adverts produced in this Newsletter, no liability can be accepted by the PPL for any errors or omissions, however caused.

PMG UPDATE

AN INSPIRATION

Dr Scahill returned to work in April following her maternity leave and is working Mondays, Wednesdays and Thursdays.

Congratulations to Dr Harleen Bedi who has passed all of her exams and will complete her training as a GP at the end of July. Our other trainee – Dr Rosanna De Cata - will be in post until January 2018.

The Partners are looking to employ a salaried GP to help cover the workload when Dr Pullan leaves the Practice.

Following the inspection visit of the Practice by the Care Quality Commission on 5th January, we have now received our report (copy on the website) and Pulborough has been graded as outstanding. Only 3% of the Practices in the country are in this category, and all of the Partners and staff are delighted with the outcome which recognises the hard work and commitment of everyone who works at PMG to provide the best possible care to all of our patients.

PMG continue to meet and work with the other Practices in our Group regarding future developments in Primary Care within our locality and Clinical Commissioning Group.

The Practice has an **Encircle** training afternoon on **Tuesday 23rd May** when we will be **closed for routine appointments**; clinical staff (GPs & nursing team) will attend training sessions at Fontwell. Workshops for the nursing team include safeguarding, diabetes, paediatric asthma, infection prevention control and waste management. For GPs the afternoon will include discussions on the next 5 years; accountable care in Coastal West Sussex CCG, what this means for GP Practices, prevention and social prescribing, urgent care and older people.

Pulborough Dental Care



Tooth whitening

• Dentures

Cosmetic dentistry

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We aim to provide a caring quality dental service in a relaxed and friendly environment.

New patients welcome.

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Invisible tooth straightening

For several years I have been attending the bi-annual ladies lunch of the Queen Elizabeth's Foundation for Disabled People (QEF), a Surrey-based charity which raises a phenomenal amount each year to 'help some 4,500 disabled adults and children with physical and learning disabilities or acquired brain injuries, supporting them in gaining new skills and increased independence' including providing Bugzis, powered indoor wheelchairs for 1-6 year olds.

The most recent occasion in April the speaker was not only extremely well-known but also disabled – Baroness Tanni Grey-Thompson, DBE, OBE.

She is an excellent speaker, talking to us for half an hour without notes, with humour and without a hint of pity. She told us that she was born with spina bifida and could walk until she was 5 at which point she started to get less able, and had a wheelchair by the time she was 7.

At that time, as she pointed out, you didn't see many people in wheelchairs and there was far less accessibility also. Friends of her parents thought that a wheelchair was not the answer, but her father was adamant that this would be good for Tanni. She made us laugh admitting that she was a bolshie child and that her father was absolutely right as a wheelchair gave her the independence she craved and the opportunity to try various sports and discover her real passion.

This 'bolshiness' has obviously been instrumental in her achieving all she has. She showed us a short video of the wheelchair races she has not only taken part in, but achieved so much *(in case you've lost count, she amassed an astonishing 1 Bronze, 4 Silver and 11 Gold medals - and also won the London Marathon 6 times!!).*

Again, we were amused when we were told about a notable occasion when she broke her usual rule of getting herself and her wheelchair up steps when there was no other way by accepting the help of two young men. She told us how she was on the point of declining the offer as usual – when she looked at the two in question. It didn't take her long when she reached the top to let her husband know that Steve Redgrave and David Beckham had just helped her! We also heard about the London/Paris bid for the Olympics and how confident the French were; reading between the lines, she was the leading force in inspiring the team to win.

In March 2010 she was created a life peer and became the youngest in the House of Lords, the average age being 67. Much of her time is now spent campaigning on various committees.

She proudly talked about her wheelchair with purple wheels and said how important it is for each person requiring a wheelchair to have one that is specifically adapted for them. I hadn't appreciated before the massive drain on NHS finances in sorting out things like pressure sores, etc. if the chair is not right. I had a quick word with Dame Tanni prior to her talk and mentioned that I'd seen on her website her comment about customised wheelchairs – she told me that she is currently in talks with NHS England lobbying for all wheelchair users which is great.

SHINGLES

Smiles for Kids

FOOD SEARCH: Help us find these foods!

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horizontal, diagonal, even backwards!



The word 'shingles' might conjure up a pebbly seashore in your mind, maybe a type of wooden roof tile – or maybe the virus, which possibly causes similar pain to walking bare-foot on a stony beach!

What is Shingles and how common is it? The virus causes pain and a rash along a band of skin supplied by the affected nerve, and is the same virus as causes chickenpox, so anyone who has had chickenpox may develop shingles. 1 in 5 people develop shingles and, although it can occur at any age, it is most common in people over 50.

How does Shingles occur? Most people have chickenpox at some stage, often as a child, and the virus does not completely go, but remains inactive in the nerve roots next to the spinal cord. They do no harm there and cause no symptoms – maybe for years – but may reactivate, travelling along the nerve to the skin to cause shingles. This can occur for no apparent reason, but may be caused by stress or illness.

What are the common Shingles symptoms? The virus usually affects one nerve only and on one side of the body – and most usually on the chest or abdomen. The upper face (including an eye) is also a common site. The pain can be dull or gnawing and/ or sharp and stabbing pains that come and go. The affected area is tender, with the rash typically appearing 2-3 days later; it looks like chickenpox but only appears in the area affected by the nerve. Shingles usually lasts 2-4 weeks and can include feverishness and feeling unwell.

Is Shingles contagious? Yes, you can catch chickenpox from someone with shingles if you have not already had chickenpox, and the blisters are only contagious by direct contact, so covering them can mean returning to work if you feel well enough. However, pregnant women or people with a poor immune system who have not had chickenpox should avoid people with shingles.

Treatments: The two main aims are to ease pain and to prevent neuralgia (nerve pain). Speed (within 72 hours) is of the essence if you are over 50, have a severe rash, severe pain or have a poor immune system. If any of these apply to you make an appointment to see your doctor to check whether antiviral drugs are appropriate for you.

Further information on Shingles – or indeed on any medical problem – can be obtained from www.patient.co.uk