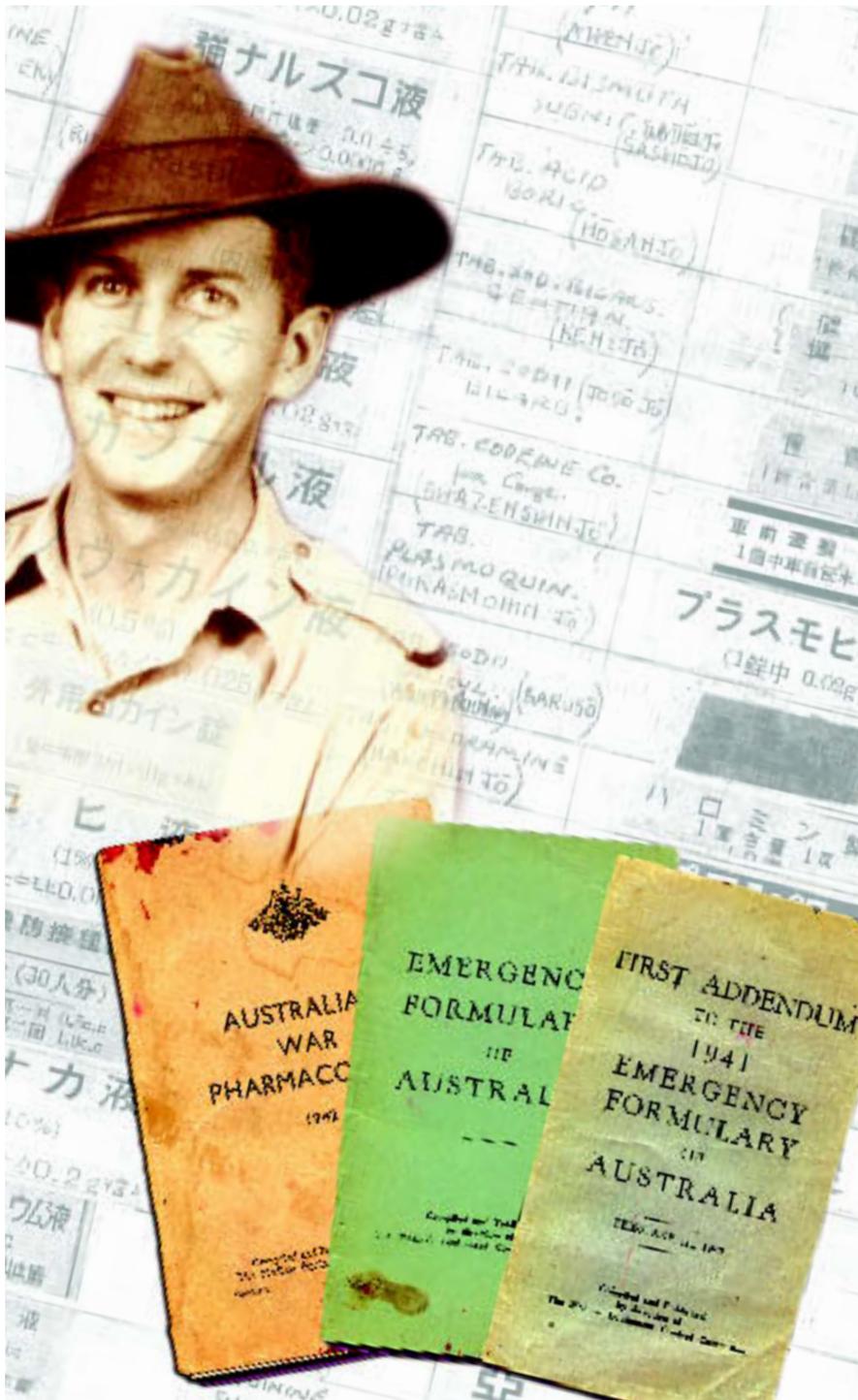


# POW pharmacist



*It is unusual enough that Tasmanian Bevan Warland-Browne still works locum pharmacy shifts at the age of 87, but it is even more remarkable considering that his career includes over three years as a pharmacist prisoner of war on the notorious Burma-Thai Railway. Australian Pharmacist Deputy Editor, Aaron Hall reports.*

After enduring five years of war, most Australians at the end of 1945 thought they had seen the worst their foes could dish out. But as Allied troops overran the prison camps of the collapsing Japanese Empire, the horrors they found shocked a battle-hardened nation.

One of the most infamous episodes uncovered was the brutality inflicted on 60,000 Allied prisoners of war forced to build the Burma-Thai Railway. Of the 13,000 Australian men sent to work on the railway, 2,700 never returned. For those who did come home, a large number suffered debilitating health problems and many died from the after-effects of their imprisonment.

So it is not only remarkable that Launceston pharmacist Bevan Warland-

*Australian Pharmacist thanks Geoff Miller for additional photograph and interview material.*

Browne survived the railway and regained his good health, but that he is still working regularly as a locum in northern Tasmania.

Now 87 years old, Bevan went to war as a staff-sergeant in the 2/4th Casualty Clearing Station (CCS), a medical unit formed from Tasmanian volunteers. His unit was captured amid the shambles of the Malayan collapse and they were imprisoned in Changi before being sent to work on the railway.

*'Australian doctors had never seen these diseases—malaria of all types, pellagra, cholera, amoebic dysentery, bacillic dysentery, beri beri, blindness from vitamin deficiency ...'*

Just getting to the railway foreshadowed the horrors that were to follow as the Japanese packed the prisoners onto one of their infamous 'hellships' for transport to Moulmein in Burma (now known as Myanmar). Throughout the war the Japanese routinely piled many hundreds of prisoners into the overcrowded holds of ships with minimal water, often no food, and no ventilation, for many days under the tropical sun.

Asked to describe conditions on the railway, Bevan told *Australian Pharmacist* simply, 'We were worked to death, starved to death ... and the diseases, well ...' The sentence trailed off as he thought of how to convey exactly what difficulties the medical staff faced, particularly after the malnourished prisoners had toiled for months cutting a railway by hand through dense jungle and mountainous terrain.

'Australian doctors had never seen these diseases—malaria of all types, pellagra, cholera, amoebic dysentery, bacillic dysentery, beri beri, blindness from vitamin deficiency,' Bevan said.

He was sent to work for six months shovelling dirt on the railway, before being

brought permanently into one of the many camps scattered along the 420km line to deal with the rapidly growing numbers of sick prisoners. 'I was "yaegio zaishu"—a pharmacist—and they took me to a "hospital" ... just a few atap [bamboo and palm thatch] huts.'

The POW doctors in these hospitals along the railway have since become famous for their work, particularly Lieutenant Colonel Edward 'Weary' Dunlop and Lieutenant Colonel Albert Coates, the doctor with whom Bevan worked and who later gave evidence at the post-war Japanese War Crimes Trials.

For all camps along the railway, an acute shortage of drugs proved a constant problem to the medical staff.

Australian journalist Rohan Rivett was in many of the same camps as Bevan—'he kept his notes in my special wooden box with a false bottom and red cross'—and described the pitiful drugs situation in his book, *Behind Bamboo*:<sup>1</sup>

*'Quinine we had most of the time in reasonable quantity, which was not surprising since the Japs now controlled the world's supply area. But every other hospital requirement was either non-existent or available only in hopelessly inadequate quantities. Hard work by orderlies—chiefly from the 2/4 CCS, a Tasmanian unit—and the camp "Buppin", or works staff, resulted in the improvisation of a scanty but invaluable stock of tables, containers, pans and tins for boiling water. The Japanese supplied a few antiseptics and a small quantity of things such as acriflavine, boracic and one or two healing agents, but there was no ointment or*

*grease to form a base for the hundreds of dressings required daily by men suffering from tropical ulcers, ringworm, tinea and all the other forms of dermatitis produced by malnutrition in the tropics.'*

Mr Rivett went on to describe Bevan's part in improvising a solution to the ointment problem:

*'The problem was solved only by the gallant scrounging of axle grease from the Japanese workshops by POWs working there. Staff-Sergeant Bev Browne, of Launceston, the chemist attached to the CCS*

*An advanced tropical ulcer on the leg of a prisoner of war in Thailand in 1943. Australian War Memorial Negative Number P00761.010.*

*unit, mixed up compounds of axle grease with a thin ration of antiseptic and this helped to draw the pus which seemed to appear with rapidity from all sores.'*

## Effective scrounging

Effective 'scrounging' helped Bevan extend the range of skin treatments.

'I managed to get a *Martindale Pharmacopoeia* into the camp,' he told *Australian Pharmacist*. 'In it we found the formula for Vlemink's solution—sulphur and lime—this was very good for fungal infections and was used on jock itch [*tinea cruris*].'

There were problems using the few drugs the Japanese gave them. 'They had Japanese labels,' Bevan said. 'One bottle with white power looks pretty much the same as every other when you can't read Japanese.'

*'After about a year working on the railway, the prisoners started to suffer from the combined effects of malnutrition and overwork.'*

They managed to work out what a few of the bottles contained, but it was not until they met a helpful guard that they found out what drugs they had in stock. 'Fortunately, later in the piece was a rather reasonable guard who translated the Japanese characters on the labels,' Bevan said. 'It turned out the labels were direct translations of the Latin terms for the drugs.'

After about a year working on the railway, the prisoners started to suffer from the combined effects of malnutrition and overwork. One of the resulting conditions, tropical ulcers, took a form that none of the Australians had ever seen before.

Colonel Coates described the impact of these sores:<sup>2</sup>

*'[After mid-1943] then began to appear an ulcer which we had never seen before. In the exhausted, starved and malarial prisoners of war the reaction to a slight abrasion or bamboo scratch was of a different*



*Four prisoners of war with beri beri at the Tarsau hospital/staging camp in Thailand in 1943. Australian War Memorial Negative Number P00761.010.*

*order. A gangrenous or necrotic process spread into the deeper tissues, tendons, muscle, even bone.*

*'Two or more ulcers would coalesce and half the leg would be one large sore, or the whole anterior surface of the leg would disappear, leaving an ivory-like piece of tibia exposed.'*

After trying all conventional treatments, he believed surgery was the only option.

*'As the weeks passed and some thirty of these men died in agony after prolonged suffering ... I decided that amputation was worth a trial in the worst cases.'*

*'Men soon began to beg to be relieved of their stricken limbs.'*

Bevan outlined the main treatment for tropical ulcers, curettage.

'Outside the hut men sat in a long row with their ulcers exposed—Colonel Coates would come around with a spoon and curette each one—a large leaf would be placed beside them to put the muck on,' Bevan said. 'There was a terrible food shortage, particularly of protein, and this made it very difficult to treat the ulcers—they wouldn't heal.'

Colonel Coates, too, believed the poor diet was one of the main factors.

*'After our meat supply improved [once prisoners were moved out of the jungle camps], the ulcers ceased to spread and from then on amputation became more rarely necessary.'*

## Improvising to survive

With no anaesthetic supplied by the Japanese, camp medical staff had to improvise with what they had. Bevan explained that Colonel Coates had a small supply of cocaine tablets and the pair pioneered the use of cocaine solution intrathecally as a spinal block.

'We recrystallised kitchen salt and made up a 2% cocaine solution from the tablets in 4% hyperbaric saline.'

There were no accurate scales so Bevan had to guess the required amount of salt to be used. Of course the cocaine dosage was known from the tablets.

'The interesting thing was that it only blocked the pain,' Bevan said. 'In a lot of cases the patient could actually help the surgeon by moving or lifting his leg, the motor nerves were not affected but the sensory nerves were blocked.'

'All sorts of necessary surgery was done in this way ... Colonel Coates did 150 amputations and, as a result, saved many from gross sepsis.'

Colonel Coates believed Bevan's unit was vital in trying to stem the horrendous casualty toll among the prisoners.

*'[At the 55 Kilo Camp] the "jungle section" of the 2/4 [CCS] worked splendidly and the cooperation of recovering officers and NCOs who assisted in the medical work alone made it possible for us to carry on. Lt Col Gottschall, who later died in that camp, and Major Charles O'Brien gave all*

*the help they could as POW commander and adjutant.'*

At the 55 Kilo Camp there were 1900 men, 500 of them ulcer cases, and the medical supplies were typically pitiful.

*'Apart from the rice issued by the Japanese, the only other issue was a package containing six bandages, a few cakes of sulphur, Epsom salts and a bottle of iodine,*

*sometimes a few quinine tablets and an odd ampoule of novocaine. This was issued about once a fortnight and was in the nature of a supply to a healthy platoon [about 30 men] for first-aid purposes. [Bevan said even this was far in excess of any supplies he saw at one of his camps.]*

*'The spectacle of emaciated skeletons of men, on the one hand, and oedematous, water-logged wrecks on the other, lying in pain and misery, many with rotting, gangrenous ulcers of the leg, emitting a nauseating stench, is one I can never forget.'*

Bevan was involved with the prisoners' production of alcohol, one of the most important tasks. 'Alcohol manufacture was necessary for sterilisation and the operating theatre,' Bevan said. 'You would have to ferment sugar and rice and then distil it.'

Despite the crude stills, the distillation process was remarkably effective. 'It was 60% at first distillation, pretty high at the second.'

Later in the war they refined the technique even further, using natural yeasts on the surface of the rice to drive fermentation and eliminating the need for sugar.

Another medical necessity was catgut—made from water buffalo intestines—and this required a special technique to be cleaned, dried and twisted. 'Fortunately we had iodine crystals and potassium iodide,' Bevan said. 'Sterilisation was undertaken by immersing the catgut in 2.5% iodine solution in alcohol.'

*'We recrystallised kitchen salt and made up a 2% cocaine solution from the tablets in 4% hyperbaric saline.'*

'There were, of course, no pathology facilities for blood transfusions, so donated blood was run into a sterile receptacle and beaten with a sterilised bamboo whisk.

'The resultant coagulant of cells and fibrins was discarded and the serum was used on the patients.

ALUMINUM CRYSTALS (MILK) MILK LITMUS C.P.	ALUMINUM 明礬 荳若錠 13002147=0.02g3K	TWO. DOWSON (INDIAN) (KING)	ドーブル酸錠 13002147=0.02g3K
SCOPOLAMINE (KIDNEY)	荳若錠 13002147=0.02g3K	TWO. CAT. OPPI (KIDNEY)	片片錠 13002147=0.02g3K
PANTOPAN OR SCOPOLAMINE (KIDNEY AND EX)	猫ナルスコ液 13002147=0.02g3K	TWO. GISMORIN SUGAR (KIDNEY)	糖昔錠 13002147=0.02g3K
RIVAROL (NUMBER 28)	Pastilli Rimaoni リマオン錠 13002147=0.02g3K	TWO. ALD GOML (KIDNEY)	理前錠 13002147=0.02g3K
EMETINE (MILK)	イメチン液 13002147=0.02g3K	TWO. AND (KIDNEY)	糖昔錠 13002147=0.02g3K
CHAMPOR (MILK)	カンフル液 13002147=0.02g3K	TWO. AND (KIDNEY)	糖昔錠 13002147=0.02g3K
NOVOCHEIN (TAKUOCHIKIEN LAW)	弱ノヴォカイン液 0.5% 13002147=0.02g3K	TWO. AND (KIDNEY)	糖昔錠 13002147=0.02g3K
COCAINE HCL (SUGAR KIDNEY)	外用コカイン錠 13002147=0.02g3K	TWO. AND (KIDNEY)	糖昔錠 13002147=0.02g3K
MORPHINE (MILK)	モヒ液 13002147=0.02g3K	TWO. AND (KIDNEY)	糖昔錠 13002147=0.02g3K
CHOLERA VACCINE (MILK) (SUGAR)	コレラ菌苗 13002147=0.02g3K	TWO. AND (KIDNEY)	糖昔錠 13002147=0.02g3K
SUB. BENZ. CAFFEINE (MILK)	安ナカ液 13002147=0.02g3K	TWO. AND (KIDNEY)	糖昔錠 13002147=0.02g3K
CHLORAL HYDRATE (MILK)	弱カリウ液 13002147=0.02g3K	TWO. AND (KIDNEY)	糖昔錠 13002147=0.02g3K
CAUCALIE (MILK)	弱カリウ液 13002147=0.02g3K	TWO. AND (KIDNEY)	糖昔錠 13002147=0.02g3K
AMMONIUM CHLORIDE (MILK)	弱カリウ液 13002147=0.02g3K	TWO. AND (KIDNEY)	糖昔錠 13002147=0.02g3K
RINGER'S SOLUTION	リンゲル液 13002147=0.02g3K	TWO. AND (KIDNEY)	糖昔錠 13002147=0.02g3K

A reasonable guard helped compiled this dictionary of Japanese medicines labels. At any one time the prisoners would have only a few of these medicines.

‘Over 1,500 defibrinated transfusions were given over the years with a minimal number of reactions.’

Bevan was among the first group of prisoners to work on the railway and worked from the Burmese end. Later groups—including ‘Weary’ Dunlop’s F Force—worked from the Thai end and many of these encountered a severe cholera epidemic.

Cholera did appear in Burma, but one of the worst killer diseases there was amoebic dysentery. At the time this was routinely treated with emetine, but despite repeated requests the Japanese refused to supply this common medicine (large supplies were found in the camp storerooms after the war, provided by the Red Cross).

‘The amoebic patients would pass pieces of bowel the size of a small saucer and there was 20% mortality,’ Bevan said. ‘Then a Dutch chemist [Van Boxtel] managed to extract 150 doses of emetine from a bottle of ipecacuana extract that he had.

*‘We made up saline with kitchen salt. The water was condensed by running the steam through stolen pipes which we wrapped in bamboo jackets filled with cold water from the dam.’*

‘Then they could start to treat amoebic dysentery. Five doses were enough to arrest the haemorrhage.’

Ameobic dysentery led to about 20 motions per day but it was more chronic and led to liver failure.

With so many cases of cholera and both amoebic and bacillic dysentery, rehydration was vital.

‘Cholera is a horrible disease; you can get 60 [bowel] motions in a day. You also get dehydrated—our only treatment was to give saline infusions,’ Bevan told *Australian Pharmacist*.

‘In the kitchen we set up a still that distilled 120 pints a day. We made up saline with kitchen salt. The water was condensed by running the steam through stolen pipes which we wrapped in bamboo jackets filled with cold water from the dam.

‘Severely dehydrated patients were given five or six pints and this frequently had a magical effect.’

Another example of the prisoners’ ingenuity was in creating their own elasticised bandages.

‘It was found if we added 1% formalin to latex from nearby rubber trees, it stopped it setting,’ Bevan said. ‘We got permission from the Japanese to get latex. With that we would cut a square of cloth and coat it with latex—make our own *elastoplast*. The latex would set upon contact with the skin.’

Bevan said the Thais were particularly active in trying to aid the prisoners. ‘There was a very fine Thai fellow—Boon Pong—who brought vegetables to the camp. He

even managed to obtain some proper medicines and smuggled them in.’ He was later awarded a decoration by the King.

At the end of the war Bevan was in the main camp at Kanburi [Kanchanaburi]. ‘The British [airforce] dropped some supplies and in it was some penicillin with a leaflet explaining what it was.’ The new ‘wonder drug’ for 1945 was soon put to use.

One incident illustrated the complete reversal of Japanese attitudes towards their former prisoners after the atomic bomb ‘saved our lives’. ‘There was a very good interpreter, Bill Drower—a very big man—the Japanese hated him, he was English,’ Bevan said. ‘Just before the end of the war they stuck him in a trench for five days, but when they heard the war was over they sent him a double bed and a case of Thai Black & White Cat whiskey.’

### After the war

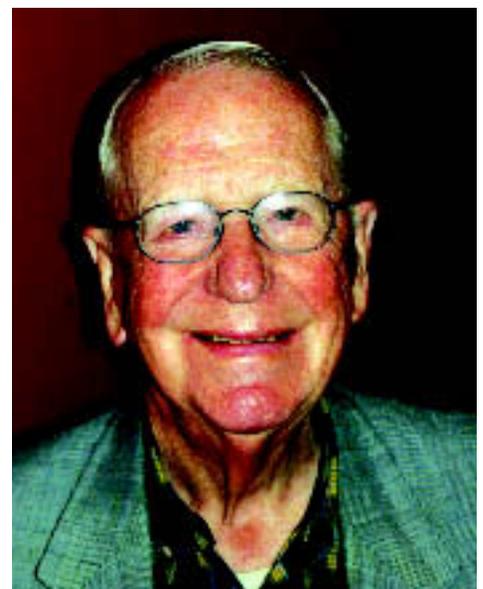
Bevan returned to Australia in November 1945, after 1,200 days in captivity.

He restarted his pharmacy career in Launceston in partnership with his father, Frank

*‘We got permission from the Japanese to get latex. With that we would cut a square of cloth and coat it with latex—make our own elastoplast.’*



Bevan Warland-Browne (then Staff-Sergeant Bevan Browne) shortly before he embarked for Malaya and subsequent captivity.



Bevan Warland-Browne today.



*Ink-stained manuals used by Australian Army pharmacists in the early 1940s.*

Warland-Browne, owning three pharmacies. In 1971 he sold the three pharmacies and later opened a small pharmacy on the Gold Coast. 'I was filling 80 to 100 scripts a day,' he said.

But he had been advised not to sign a lease with his landlord and, after many

years of developing the business, the building's owner forced him out.

Luckily for Bevan, David McDonald, who owned two large pharmacies in North Sydney, was opening a pharmacy at Surfers Paradise and he came up and bought the entire shop—all the stock,

mortars and pestles, and equipment. 'I also used to work for him every Saturday,' Bevan said. 'I got out of that mess very well.'

After 30 years in Queensland, Bevan moved back to his childhood home of Launceston. He lives there with his second wife, Jan.

And remarkably, he still undertakes locum shifts—the odd day or two—at a pharmacy in Deloraine, another town in northern Tasmania.

## References

1. Rivett, R. Behind Bamboo. Angus and Robertson 1954:166.
2. Aust. War Memorial PR89/186 Papers of Lt. Col. A. Coates OBE 2/10 AGH AIF Conflict 1939-1945 AWM file 89/1695 Item 6.