

## Editorial

# “Maintenance” treatment of addiction: To whose credit, and why it matters

It has been stated that credit for introducing methadone “maintenance” treatment of opiate dependence does not belong to Drs. Vincent Dole and Marie Nyswander, but rather to a Canadian, Dr. Robert Halliday. One writer put it this way: “Halliday began methadone treatment for heroin addiction in Vancouver, British Columbia, in the late 1950s and introduced a methadone maintenance program in 1963” (Bayes, 2007). Can and should he, in fact, be credited with first introducing the concept and practice of “maintenance” treatment of addiction? The answer seems to be “no”.

In a 1963 article Halliday wrote, “. . . it is now widely accepted that the addict is a sick person physically, psychologically and socially, and as such requires medical and other treatments” (Halliday, 1963). Although even today the claim of “wide acceptance” would seem – sadly – to overstate the case, Halliday did the field of addiction a great service by calling renewed attention to the view expressed 40 years earlier by the Rolleston Committee in England: “. . . [A]ddiction to morphine and heroin should be regarded as a manifestation of a morbid state, and not as a mere form of vicious indulgence” (Ministry of Health, 1926); as such, the Committee concluded it should be considered “the responsibility of doctors” (Berridge, 1980).

With respect to the fundamental concept of addiction as a medical problem that falls squarely in the realm of the clinician, Rolleston, Halliday and Dole were clearly of like mind. They also shared another common perspective, expressed in the Rolleston Report as follows: “. . . the continued supply of drugs to a patient, either directly or by prescription, solely for the gratification of addiction is unacceptable.” In precisely the same vein Halliday denounced as a “mistaken notion. . . the view that addicts should be regularly supplied with drugs on a maintenance basis” (Halliday, 1963). What might surprise many supporters as well as critics of Dole and Nyswander, however, is that they were no less emphatic on this score; in one of their earliest papers they rebutted those who “. . . erroneously assume that we give methadone to addicts as a legal substitute for heroin,” going on to state that they “. . . would not consider this to be proper medical practice” (Dole & Nyswander, 1968).<sup>1</sup>

And yet, when it came to recommendations and practices emanating from these common views Rolleston and Halliday reached conclusions very different from those of Dole and Nyswander. Thus, Rolleston explicitly limited its endorsement of the prescribing (of “usually small” doses) of opiates to “persons for whom after every effort has been made for the cure of the addiction, the drug cannot be completely withdrawn. . .” Even in such exceptional cases Rolleston clung to the goal of “cure”: “It should not. . . be too lightly assumed in any case, however unpromising it may appear to be at first sight, that an irreducible minimum of the drug has been reached which cannot be withdrawn and which, therefore, must be continued indefinitely” (Ministry of Health, 1926).

Rolleston’s unwillingness to endorse prescribing of opiates to addicts other than on a very narrowly defined exceptional basis, and even then with the hope of eventual “cure,” is not surprising given the limited pharmacological options available at the time. The therapeutic armamentarium at the disposal of those treating addiction expanded radically, however, with the introduction of methadone, which could be taken once daily, by mouth. Most importantly, Dole and Nyswander demonstrated that it not only prevents symptoms of withdrawal and lessens or minimizes “craving,” but that continued daily doses could produce a high degree of tolerance to the narcotic effects of all opiates, including those of methadone itself (Dole & Nyswander, 1965). In sum, the efficacy of methadone as recommended by Dole and Nyswander is not a function of any “legal high.” The widespread inability of critics – in the United Kingdom as in most countries of the world – to accept this fact would seem to underlie the persistent “. . . bitter disputes over whether addicts should receive long-term ‘maintenance’ prescriptions” (Mars, 2003).

Had methadone been available in the mid-1920s and its pharmacological properties understood, the Rolleston Report may well have concluded with a ringing endorsement of maintenance treatment for all opiate dependent individuals who want it, with minimal restrictions on eligibility, dosage or duration. But what of Halliday? He not only had methadone available

<sup>1</sup> It is interesting to note that in the 1960s Dr. Dole was “honored (and puzzled) by an invitation to join the Board of Alcoholics Anonymous (AA) as a non-alcoholic trustee.” He subsequently was told that he had been recommended because of the hope of Bill W., founder of AA, that he would direct his efforts to

finding “an analogue of methadone, a medicine that would relieve the alcoholic’s sometimes irresistible craving”. During the last years of his research Dr. Dole did look for such a drug - but, alas, without success. (parenthetical reference in the original, Dole, 1991).

but used it in his clinical work and observed and documented its beneficial effects on his patients. Nevertheless, he continued to insist that treatment with opiates must be “directed toward withdrawal from narcotics and eventual abstinence.” His compromise – such as it was – on the question of prescribing drugs to addicts amounted to nothing more than urging that “. . . in selected patients a more gradual withdrawal program be set up during which the patient have narcotics (methadone) prescribed on a continuing basis over a period of weeks or months” (parenthetical reference in the original, Halliday, 1963). Furthermore, he remained consistent in his views: in his last published paper he concluded, “It is suggested that for *some* patients who have failed to respond to other therapies, a prolonged withdrawal regimen plus counselling and psychiatric therapy is more likely to lead to positive [results]. . .” (emphasis in original; Paulus & Halliday, 1967). In other words, far from introducing the concept of maintenance treatment of opiate addiction, Halliday explicitly rejected it.

And Dole and Nyswander? Their contribution was *not* the introduction of methadone in the treatment of addiction; for many years methadone had been utilized without controversy to manage withdrawal symptoms (Vogel, Isbell, & Chapman, 1948). Nor was it related to the dosage they employed; they did not stress reliance on either relatively “high” or “low” dosage ranges. Nor even did their contribution have anything to do with the duration of treatment; they did not argue for either a limited duration or a life-long continuation of treatment – or any targeted duration in between. *What was unique about the concept put forth by Dole and Nyswander in the mid-1960s was the assumption implicit in all their publications that abstinence is not universally necessary or appropriate as either the process or the objective of addiction treatment, and that therapeutic success should be defined without regard to whether patients do or do not continue to take medication prescribed for their condition.*

Accolades for Dole and Nyswander, of course, are not based on their conceptual breakthrough alone, but on its practical application. Efficacy of maintenance treatment has been documented throughout the world utilizing methadone as well as other opiate agonist medications. Thus, a National Institutes of Health Consensus Statement determined, “The safety and efficacy of narcotic agonist (methadone) maintenance treatment have been unequivocally established” (parenthetical reference in the original, National Institutes of Health, 1997), and a position paper published jointly by WHO, UNODC and UNAIDS concluded, “Substitution maintenance therapy is one of the most effective treatment options for opioid dependence . . .” (WHO/UNODC/UNAIDS, 2004) The latest dramatic examples of successful implementation and massive expansion of maintenance treatment come from China and Iran. Based on favorable initial results with a handful of “pilot programs” (Pang, Hao, & Mi, 2007), China established in less than 4 years over 500 methadone maintenance clinics (Chatterjee, 2008). In Iran, the number of patients receiving methadone for addiction increased in the course of just two years from approximately 5000 to 100,000 (Fathi, 2008)

So. . . hats off to Dr. Halliday – and the Rolleston committee long before him – for stressing that addiction is a medical condition, and that it should be treated as such. However, it is the unprecedented paradigm shift of Dole and Nyswander that revolutionized the management of addiction and led directly to the availability of help and hope to vast numbers of those who desperately need it. At issue is not simply apportioning, posthumously, credit where credit is due. The fact is that to this very day, with almost a million people world-wide receiving methadone treatment, rejection of the concept introduced by Dole and Nyswander continues to be the rule rather than the exception, and the fixation on abstinence as a universal objective of treatment persists even among addiction treatment professionals. Thus, a survey in 2004 found that “. . . only 52% of [American] outpatient methadone facilities had policies *permitting* clients to remain in methadone treatment for an unlimited time. . .” (emphasis added; Levine, Reif, & Lee, et al., 2004). Also, a recent commentary in *Lancet* observed (correctly!) that “. . . from a political perspective those treatments of dependence are popular that focus on achieving abstinence in a period of weeks or months” (Hall & Mattick, 2007). And, of course, some countries reject “maintenance” altogether, as exemplified most dramatically by the Russian Federation, which “has one of the highest rates of opiate abuse in the world,” but where treatment with methadone and buprenorphine remains forbidden by law (Chatterjee, 2008).

It is essential that we get back to basics and reconsider just what constituted the contribution to the field made by Drs. Dole and Nyswander. Otherwise, the full promise of that contribution will remain a forlorn hope.

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